

REPORT ON MACHINERY

Lel No. 11109

New No. 48739

Port of Newcastle-on-Tyne & Leith

Received at London Office

19

No. in Survey held at Newcastle & Leith

Date, first Survey 12th Jan. 1905 Last Survey 24th May 1905.

Reg. Book.

(Number of Visits 27)

on the S.S. "Canning"

Master James Barker Built at Leith

By whom built John Grant & Co

Tons Gross 147.51

Net 3.97

When built 1905

Engines made at Leith

By whom made J. Grant & Co

when made 1905

Boilers made at South Shields

By whom made J. H. Eltingham & Co (No. 1468) when made 1905

Registered Horse Power

Owners The Alexandra Towing Co Ltd Port belonging to Liverpool

Nom. Horse Power as per Section 28 102

Is Refrigerating Machinery fitted no

Is Electric Light fitted no

ENGINES, &c.—Description of Engines Compound

No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 16' 4 3/4" Length of Stroke 27" Revs. per minute 110 Dia. of Screw shaft as per rule 9' 3" Material of screw shaft 2mm

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no liners 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 yes 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 yes If two

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

Dia. of shaft as per rule 7' 4 3/4" 8' 2 1/2" Dia. of Crank shaft journals as per rule 8' 3/4" 8' 7 1/2" Dia. of Crank pin 8' 3/4" Size of Crank webs 16' 3/4" x 6' Dia. of thrust shaft under

collars 8' 3/4" Dia. of screw 9' 8" Pitch of screw 12' 6" No. of blades 4 State whether moveable no Total surface 36'

No. of Feed pumps 2 Diameter of ditto 2 1/4" Stroke 15" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 2 1/4" Stroke 15" Can one be overhauled while the other is at work no

No. of Donkey Engines 1 Sizes of Pumps 5 1/4" x 4" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two 2" In Holds, &c. one in fore cabin, one in

aft cabin, one in after hold each 2"

No. of bilge injections 1 sizes 3 3/4" Connected to condenser, or to circulating pump yes Is a separate donkey suction fitted in Engine room & size yes 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 no

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 pipes always accessible and used when necessary yes

What pipes are carried through the bunkers none How are they protected yes

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock how vessel Is the screw shaft tunnel watertight none

Is it fitted with a watertight door yes worked from yes

BOILERS, &c.—

(Letter for record S.) Total Heating Surface of Boilers 1560 sq Is forced draft fitted no

No. and Description of Boilers One Single ended multitubular Working Pressure 170 lbs Tested by hydraulic pressure to 340 lbs

Date of test 12.4.05 Can each boiler be worked separately yes Area of fire grate in each boiler 56 sq No. and Description of safety valves to

each boiler Two spring valves Area of each valve 7' 17" Pressure to which they are adjusted 175 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork way of bilges Mean dia. of boilers 14' 1 1/2" Length 10' 0" Material of shell plates steel

Thickness 1 1/4" Range of tensile strength 28 1/2-32 Are they welded or flanged no Descrip. of riveting: cir. seams D.P. Lap long. seams D.B.S. J. Riv.

Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 8" Lap of plates on width of butt straps 2 1/4"

Per centages of strength of longitudinal joint rivets 87 Working pressure of shell by rules 196 lbs Size of manhole in shell 16' x 12'

Size of compensating ring flange ring No. and Description of Furnaces in each boiler 3. Box Material S. Outside diameter 46"

Length of plain part top Thickness of plates crown 1 1/2" Description of longitudinal joint weld No. of strengthening rings yes

Working pressure of furnace by the rules 175 Combustion chamber plates: Material S. Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 3/4"

Pitch of stays to ditto: Sides 8' x 9 1/2" Back 8 1/4' x 8 1/2" Top 8 1/4' x 9 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 174

Material of stays S. Diameter at smallest part 1 1/2" Area supported by each stay 8' x 9 1/2" Working pressure by rules 177 End plates in steam space:

Material S. Thickness 3/4" Pitch of stays 19' x 17 1/2" How are stays secured D.P. Riv. Working pressure by rules 236 Material of stays S.

Diameter at smallest part 2 1/2" Area supported by each stay 19' x 17 1/2" Working pressure by rules 200 Material of Front plates at bottom S.

Thickness 1" Material of Lower back plate S. Thickness 3/8" Greatest pitch of stays 17 1/2' x 8" Working pressure of plate by rules 175

Diameter of tubes 3 1/2" Pitch of tubes 4 3/4' x 4 3/4' Material of tube plates S. Thickness: Front 1" Back 7/8" Mean pitch of stays 9 1/2' x 9 1/2'

Pitch across wide water spaces 14 3/4" Working pressures by rules 176 lbs Girders to Chamber tops: Material S. Depth and

thickness of girder at centre 6 1/2' x 2 5/8" Length as per rule 2' 7" Distance apart 8 1/4" Number and pitch of Stays in each 2 . 9"

Working pressure by rules 174 Superheater or Steam chest; how connected to boiler yes 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

007846-007856-0199

DONKEY BOILER— No. *hmc* Description

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____

No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ 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 _____ 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 _____

Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____

Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *Two top end & two bottom end connecting rod bolts & nuts, two main timing bolts, one set connecting bolts, one set fuel & water pump valves, assorted bolts and nuts, 200 of various sizes*

The foregoing is a correct description,
John Lane & Co Manufacturer

Jos. J. Eltringham & Co Manufacturer of Boilers
Henry, 100 Reg

Dates of Survey while building { During progress of work in shops - - *Nov. 12, 18, 20, 26, Feb. 7, 13, 20, 27, Mch. 3, 12, 18, 23, 30, Apr. 6, 12, 1905*
During erection on board vessel - - *1905, May 11, 13, April 10, 13, 14, 20, May 2, 5, 9, 15, 24,*
Total No. of visits _____

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

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

This boiler has been constructed under special survey. The material & workmanship found sound & tested in accordance with the rules.

The machinery of this vessel has been built under special survey. The materials and workmanship are sound and good and under the vessel eligible in our opinion to have record of L.M.C. 5.05

**It is submitted that
this vessel is eligible for
THE RECORD L.M.C. 5.05.**

30.5.05
30.5.05

The amount of Entry Fee: £ *2* : - :
Special *Leith* £ *10* : *4* :
Donkey Boiler Fee *Leith* £ *5* : *2* :
Travelling Expenses (if any) £ *15* : *6* :
When applied for, *29th May 1905*
When received, *2.6.05*

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

Committee's Minute

FRI. 2 JUN 1905

Assigned

+ hmc 5.05

MACHINERY CERTIFICATE
WRITTEN



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Foundation