

REPORT ON MACHINERY.

No. 2979

No. in Survey held at Belfast
Reg. Book.

Date, first Survey March 13/83 Last Survey August 14 1883
14 Vais.

(Received in London Office) 20th AUGUST, 1883

on the S.S. Saint Kevin

Master Christopher O'Neil

Built at Belfast

When built 1883

Engines made at Belfast

By whom made M. McNamee, Limerick When made 1883

Boilers made at "

By whom made " when made 1883

Registered Horse Power 75

Owners Thos. Nelson & Co.

Port belonging to Dublin

S, &c.—

LE

o.

p.

Di

Engines Compound, Inverted, Surface Condensing

of Cylinders 22

Length of Stroke 30

No. of Rev. per minute 80

Point of Cut off, High Pressure 1/2 S Low Pressure 1/2 S

of Screw shaft 7 1/2

Diameter of Tunnel shaft 7 1/8

Diameter of Crank shaft journals 7 1/2

Diameter of Crank pin 7 1/2

size of Crank webs 8 1/2 x 5 1/4

number of screw 10-6

Pitch of screw 15-0

No. of blades 4

state whether moveable yes total surface about 32 sq

No. of Feed pumps Two

diameter of ditto 3 1/4

Stroke 16 1/2

Can one be overhauled while the other is at work yes

No. of Bilge pumps Two

diameter of ditto 3 1/4

Stroke 16 1/2

Can one be overhauled while the other is at work yes

Where do they pump from all compartments

No. of Donkey Engines Two Dumb acting Size of Pumps 3" dia x 6" stroke

Where do they pump from Feed Donkey from Sea and

Bilges, Ballast-Donkey from Ballast Tanks.

Are all the bilge suction pipes fitted with roses yes

Are the roses always accessible yes

Are the sluices on Engine room bulkheads always accessible no

No. of bilge injections One

and sizes 5" dia

Are they connected to condenser, or to circulating pump circulating pump

How are the pumps worked by levers from pistons and crossheads of both engines.

Are all connections with the sea direct on the skin of the ship yes

Are they Valves or Cocks Valves and Cocks.

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

That pipes are carried through the bunkers none

How are they protected —

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times yes

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges yes

Then were stern tube, propeller, screw shaft, and all connections examined in dry dock yes

the screw shaft tunnel watertight yes

and fitted with a sluice door yes

worked from top platform.

ILERS, &c.—

Number of Boilers One

Description Cylindrical, Double-Ended, Tubular

Working Pressure 83-lb

Tested by hydraulic pressure to 170-lb

Date of test 16-6-83

Description of superheating apparatus or steam chest none

Can each boiler be worked separately yes

Can the superheater be shut off and the boiler worked separately none

Area of square feet of fire grate surface in each boiler 49.5

Description of safety valves Spring

to each boiler Two

area of each valve 12.56 sq

Are they fitted with easing gear yes

of safety valves to superheater yes

area of each valve yes

are they fitted with easing gear —

Smallest distance between boilers and bunkers or woodwork 7'

Number of boilers 13-0

Length of boilers 9-10 1/2

Description of riveting of shell long. seams DRB 3/4" DRB 3/4" circum. seams 1 1/2" single rivets

Thickness of shell plates 3/4 (5/16)

diameter of rivet holes 7/8

whether punched or drilled drilled pitch of rivets 3"

of plating 3/16

percentage of strength of longitudinal joint 70

working pressure of shell by rules 84-lb

of manholes in shell 12 x 16

size of compensating rings 6 x 3/4

of Furnaces in each boiler Three

outside diameter 34"

length, top 6'-6"

bottom 9'-0"

Thickness of plates 1/2

Description of joint DRB 3/4" DRB 3/4" if rings are fitted Union greatest length between rings 6'-6"

Working pressure of furnace by the rules 100-lb

of stays to ditto —

sides 8 x 7 1/2

back 1/2

top 1/2

Are they fitted with nuts or riveted heads nuts

back 9 1/8 x 9

top 9 x 8

Number of stays at smallest part 1/4 and 1/8

working pressure of plating by rules 92-lb

Plates in steam space, thickness 3/4

pitch of stays to ditto 16 x 16

how stays are secured DRB 3/4" DRB 3/4" Union

Working pressure by rules 90-lb

diameter of stays at smallest part 2 1/4

working pressure by rules 90-lb

Plates at bottom, thickness 9/16

Back plates, thickness 9/16

greatest pitch of stays about 11 1/2" working pressure by rules 83-lb

Diameter of tubes $3\frac{1}{2}$ pitch of tubes $4\frac{1}{2}$ thickness of tube plates, front $\frac{5}{8}$ back $\frac{5}{8}$
 How stayed *Stay Joints* pitch of stays $13\frac{1}{2} \times 13\frac{1}{2}$ width of water spaces $1\frac{1}{2}$
 Diameter of Superheater or Steam chest *None fitted* length *—*
 Thickness of plates *—* description of longitudinal joint *—* diameter of rivet holes *—* pitch of rivets *—*
 Working pressure of shell by rules *—* Diameter of flue *—* thickness of plates *—*
 If stiffened with rings *—* distance between rings *—* Working pressure by rules *—*
 End plates of superheater, or steam chest; thickness *—* How stayed *—*
 Superheater or steam chest; how connected to boiler *—*

DONKEY BOILER— Description *Cylindrical vertical, with Firebox.*
 Made at *Belfast* By whom made *Mac Ilwaine, Lurgan, Hohen made tested, 26-6-83.*
 Where fixed *Stitcher* working pressure *60 lb* Tested by hydraulic pressure to *120 lb* No. of Certificate *40*
 Fire grate area *12 sq feet* Description of safety valves *Spring* No. of safety valves *One* area of each *8.3 sq*
 If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *No*
 Diameter of donkey boiler *4.6* length *9.6* description of riveting *lap double riveted*
 thickness of shell plates $\frac{5}{8}$ (Steel) diameter of rivet holes $13\frac{1}{16}$ whether punched or drilled *drilled*
 pitch of rivets $2\frac{1}{2}$ lap of plating $4\frac{1}{8}$ per centage of strength of joint *67*
 thickness of crown plates $7\frac{1}{16}$ stayed by $7\frac{1}{2}$ *Camber, Stayed by uprights.*
 Diameter of furnace, top $4\frac{1}{2}$ bottom $4\frac{1}{2}$ length of furnace $5-0$
 thickness of plates $3\frac{5}{8}$ description of joint *lap. Single riveted.*
 thickness of furnace crown plates $3\frac{5}{8}$ stayed *as Shell Crown*
 Working pressure of shell by rules *93 lb* working pressure of furnace by rules *57 lb*
 diameter of uptake $3\frac{1}{2}$ thickness of plates $3\frac{5}{8}$ thickness of water tubes $\frac{5}{8}$

The foregoing is a correct description,

Mac Ilwaine Lurgan & Co Ltd Manufacturer.S

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

Material and workmanship good and satisfactory.
The Machinery and Boilers of this Vessel are in good order and
safe working condition and, in my opinion, eligible to have the second
Flag No. 8-13 assigned.

*This submitted for the
 vessel is eligible to have the
 multiplexion + 2m 8.8 83
 recorded.*

The amount of Entry Fee £ 1 : : : received by me,
 Special £ 11 : 5 : :
 Certificate (if required) .. £ *Gratis* : 17.7.18 83
 To be sent as per margin.

(Travelling Expenses, if any, £ 7-7-0)

Committee's Minute

TUESDAY 21 AUGUST 1883

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Duncan Ritchie
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.