

REPORT ON MACHINERY. No. 4050

Received at London Office **FRI. 21 JAN. 1921**

Date of writing Report **19th January, 1921** When handed in at Local Office **19th January, 1921** Port of **Dublin**

No. in Survey held at **Dublin** Date, First Survey **3rd Nov. 1920** Last Survey **7th December, 1920**
Reg. Book **Suppt. 951** on the **Steel Screw Steamer "FINOLA"** (Number of Visits **8**) Tons **Gross 879.15 Net 373.62**

Master **Dublin** Built at **Dublin** By whom built **The Dublin Dockyard Co. Ltd.** When built **1921**

Engines made at **Glasgow** By whom made **Ross & Duncan** when made **1921**

Boilers made at **Glasgow** By whom made **Ross & Duncan** when made **1921**

Registered Horse Power _____ Owners **Michael Murphy, Ltd. (J.O. Dowd, Mgr.)** Port belonging to **Cardiff**

nom. Horse Power as per Section 28 _____ Is Refrigerating Machinery fitted for cargo purposes **no.** Is Electric Light fitted **yes.**

Engines, &c.—Description of Engines **Triple Expansion** No. of Cylinders **3** No. of Cranks **3**

Dia. of Cylinders **17 1/2" - 27 1/2" - 45"** Length of Stroke **33"** Revs. per minute _____ Dia. of Screw shaft **as per rule** Material of screw shaft _____

Is the screw shaft fitted with a continuous liner the whole length of the stern tube _____ Is the after end of the liner made water tight _____

Is the propeller boss _____ 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 _____

When the shafts are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush _____

Dia. of Tunnel shaft **as per rule** Dia. of Crank shaft journals **as per rule** Dia. of Crank pin _____ Size of Crank webs _____ Dia. of thrust shaft under _____

Blades _____ Dia. of screw _____ Pitch of Screw _____ No. of Blades _____ State whether moceable _____ Total surface _____

No. of Feed pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____

No. of Bilge pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____

No. of Donkey Engines _____ Sizes of Pumps _____ No. and size of Suctions connected to both Bilge and Donkey pumps _____

Engine Room _____ In Holds, &c. _____

No. of Bilge Injections _____ sizes _____ Connected to condenser, or to circulating pump _____ Is a separate Donkey Suction fitted in Engine room & size _____

Are all the bilge suction pipes fitted with roses _____ Are the roses in Engine room always accessible _____ Are 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 **both.**

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ 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.**

How are they protected _____

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times _____

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges _____

Is the Screw Shaft Tunnel watertight **mach. aft.** Is it fitted with a watertight door **✓** worked from **✓**

MANUFACTURERS, &c.—(Letter for record _____) Manufacturers of Steel _____

Total Heating Surface of Boilers _____ Is Forced Draft fitted _____ No. and Description of Boilers _____

Working Pressure _____ Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____

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

Each boiler _____ Area of each valve _____ Pressure to which they are adjusted _____ Are they fitted with easing gear _____

Smallest distance between boilers or uptakes and bunkers or woodwork _____ Mean dia. of boilers _____ Length _____ Material of shell plates _____

Thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____

Long. seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____

Percentages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____

Thickness of compensating ring _____ No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter _____

Length of plain part **top** _____ Thickness of plates **top** _____ Description of longitudinal joint _____ No. of strengthening rings _____

Working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____

Thickness of stays to ditto: Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____

Material of stays _____ Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____

Material _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____

Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____

Thickness _____ Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____

Diameter of tubes _____ Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____

Clearance across wide water spaces _____ Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and _____

Thickness of girder at centre _____ Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____

Working pressure by rules _____ Steam dome: description of joint to shell _____ % of strength of joint _____

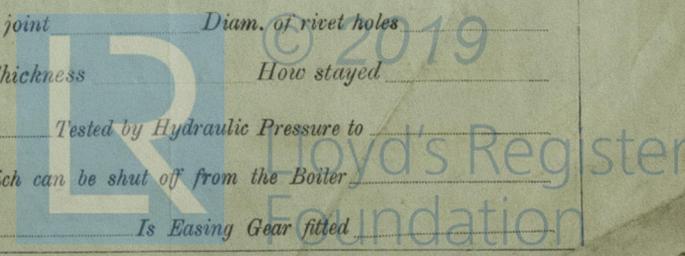
Diameter _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____

Thickness of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

SUPERHEATER. Type _____ Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____

Date of Test _____ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler _____

Diameter of Safety Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

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

1920: Nov. 3. 5. 9. 11. 12. 16. 27. Dec. 7.
 For this Survey — 8.

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods

Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings 9-11-20 Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Completion of fitting sea connections 27-11-20 Stern tube 11-11-20 Screw shaft and propeller 12-11-20

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do. 1075

Material of Tunnel shafts Identification Marks on Do. Material of Screw shaft Identification Marks on Do. 1075

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel no Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case If so, state name of vessel

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

The sea cocks and valves, the stern tube, tail shaft and thrust shaft satisfactorily fitted in the vessel.
 The vessel has been towed to Glasgow where the Machinery and Boilers are to be fitted, and the Glasgow Surveyors have been advised.

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

The amount of Entry Fee ... £ : : When applied for.

Special ... £ : : 19

Donkey Boiler Fee ... £ : : When received.

Travelling Expenses (if any) £ : : 19

A. B. Forster
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 18 FEB. 1921

Assigned

