

# REPORT ON MACHINERY.

No. 16635  
THU. APR. 16. 1914

Received at London Office

Survey held at Greenock Date, First Survey 3<sup>rd</sup> June, 1913 Last Survey 7<sup>th</sup> April, 1914  
When handed in at Local Office 9/4/14 Port of Greenock  
(Number of Visits 41)

Survey held at Greenock on the Screw Steamer "Hermine" (Name of vessel) now "Rosalie"  
Built at Trusmi By whom built Cantieri navali triestini When built 1914  
By whom made John G. Kincaid & Co. Ltd. when made 1914

Registered Horse Power 520 Owners John G. Kincaid & Co. Ltd.  
Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

DESCRIPTION OF ENGINES  
No. of Cylinders Three No. of Cranks Three  
Material of screw shaft Steel  
Length of Stroke 48" Revs. per minute 45 Dia. of screw shaft 15 1/2"  
Is the after end of the liner made water tight Yes

Is the propeller boss fitted with a continuous liner the whole length of the stern tube Yes  
If the liner is in more than one length are the joints burned Yes  
the liner does not fit tightly at the part Yes

Is the space between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes  
Length of stern bush 60 1/2"  
If two shafts are fitted, is the shaft lapped or protected between the liners Yes  
Dia. of Tunnel shaft 13 1/2" as per rule 13 1/2" Dia. of Crank shaft journals 14 1/2" as fitted 14 1/2" Dia. of Crank pin 14 1/2" Size of Crank webs 2 1/2 x 9" Dia. of thrust shaft under 13 1/2"

No. of Feed pumps 2 Diameter of ditto 4" Stroke 27" Can one be overhauled while the other is at work Yes  
No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 27" Can one be overhauled while the other is at work Yes  
No. of Donkey Engines Two Sizes of Pumps 8 x 5 x 8" 9 x 13 x 10" No. and size of Suctions connected to both Bilge and Donkey pumps Yes

Engine Room Yes In Holds, &c. Yes  
No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2"  
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 Yes

Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Yes  
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 Yes  
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 Yes 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

Dates of examination of completion of fitting of Sea Connections Yes of Stern Tube Yes Screw shaft and Propeller Yes  
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c. (Letter for record S.V.) Manufacturers of Steel Stewart & Lloyd & D. Colvill & Sons  
Total Heating Surface of Boilers 7719 sq. ft. Is Forced Draft fitted Yes No. and Description of Boilers 3 Cylindrical Single  
Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 29/1/14 No. of Certificate 1160

Can each boiler be worked separately Yes Area of fire grate in each boiler 59 sq. ft. No. and Description of Safety Valves to Yes  
each boiler 2 Area of each valve 9.62 sq. ft. Pressure to which they are adjusted 180 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork Yes Mean dia. of boilers 15.0" Length 12.0" Material of shell plates Steel  
Thickness 1 3/32" Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams Lap Double

long. seams Double Butt Strap Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 9" Top of plates or width of butt straps 1.7"  
Per centages of strength of longitudinal joint 91.7% Working pressure of shell by rules 182 lbs. Size of manhole in shell 16" x 12"

Size of compensating ring 32 1/2 x 28 1/2 x 1 3/32" No. and Description of Furnaces in each boiler 3 Deighton's Material Steel Outside diameter 47 1/4"  
Length of plain part 8.48" Thickness of plates 9" Description of longitudinal joint Weld No. of strengthening rings None

Working pressure of furnace by the rules 186 lbs. Combustion chamber plates: Material Steel Thickness: Sides 5" Back 6" Top 5" Bottom 4"  
Pitch of stays to ditto: Sides 8 x 9" Back 9 x 8" Top 8 x 9" If stays are fitted with nuts or riveted heads None Working pressure by rules 210 lbs. End plates in steam space: Steel

Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 44 sq. in. Working pressure by rules 180 lbs. Material of stays Steel  
Material Steel Thickness 1 3/32" Pitch of stays 21 x 20 1/2" How are stays secured Old nuts Working pressure by rules 182 lbs. Material of Front plates at bottom Steel

Diameter at smallest part 3 3/32" Area supported by each stay 430 sq. in. Working pressure by rules 182 lbs. Working pressure of plate by rules 186 lbs.  
Thickness 15" Material of Lower back plate Steel Thickness 3 1/2" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 186 lbs.  
Diameter of tubes 2 1/2" Pitch of tubes 33 x 33" Material of tube plates Steel Thickness: Front 15" Back 11" Mean pitch of stays 8.68"  
Pitch across wide water spaces 13" Working pressures by rules 184 lbs. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/2 x 1 1/2" Length as per rule 31.68" Distance apart 9" Can the superheater be shut off and the boiler worked separately Yes

Working pressure by rules 182 lbs. Superheater or Steam chest; None connected to boiler None Diam. of rivet holes 1 1/2" Material Steel Description of longitudinal joint Weld Thickness 15"  
separately Yes Diameter 15" Length 11" Thickness of shell plates 15" Material of flue plates Steel How stayed None  
If stiffened with rings Yes Working pressure of shell by rules 184 lbs. Diameter of flue 15" End plates: Thickness 15"  
Working pressure of end plates 182 lbs. Distance between rings 11" Working pressure by rules 184 lbs. Are they fitted with easing gear Yes

W 716-0206



**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No. \_\_\_\_\_ Description \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_  
 Made at \_\_\_\_\_ By whom made \_\_\_\_\_  
 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 \_\_\_\_\_ Rivets \_\_\_\_\_ Plates \_\_\_\_\_  
 Dia. of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_  
 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 \_\_\_\_\_ Radius of do. \_\_\_\_\_ Stayed by \_\_\_\_\_  
 Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_ Dates of survey \_\_\_\_\_

**SPARE GEAR.** State the articles supplied:— Propeller and shaft, 2 main Bearing Bolts, 2 Conn. Rod Bolt-End Bolts, 2 Conn. Rod Top End Bolts, 1 set Coupling Bolts, 1 set Feed & Bilge Pump valves, 1 set L & C Sprung for each Piston, 3 main Boiler Feed Check valves, 1 0 1/2" Feed Check valve, 12 Joint Ring Bolts, 4 Boiler tubes, 12 Condenser tubes & 120 ferrules, 1 Escape valve Sprung of each size, 2 Safety valves Sprung, 1 Feed Pump discharge valve, 1 Bilge Pump discharge valve, 50 Bolts "nut ass't" sizes, 5 Bars flat iron & 5 Bars "L" iron

The foregoing is a correct description,  
John G. Kincaid & Co Ltd Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1913 June 3-5, July 31, Aug 5-7, 19-21, 25, Oct 17, Nov 1-17, 20-25, 29, Dec 3, 9, 16, 23, 26, 30, 1914 Jan 7.  
 During erection on board vessel --- 12, 14, 16, 21, 26, 28, 29, Feb. 10, 14, 18, 19, 25, Mar. 4, 10, 17, 18, 24, 26, 30, Apr. 7.  
 Total No. of visits 41.

Is the approved plan of main boiler forwarded herewith \_\_\_\_\_  
 " " " donkey " " " \_\_\_\_\_  
 Dates of Examination of principal parts—Cylinders 25/2/14 Slides 19/2/14 Covers 25/2/14 Pistons 25/2/14 Rods 26/1/14  
 Connecting rods 26/12/13 Crank shaft See Report Thrust shaft See Report Tunnel shafts See Report Screw shaft 17/3/14 Propeller 10/2/14  
 Stern tube 18/2/14 Steam pipes tested \_\_\_\_\_ Engine and boiler seatings \_\_\_\_\_ Engines holding down bolts \_\_\_\_\_  
 Completion of pumping arrangements \_\_\_\_\_ Boilers fixed \_\_\_\_\_ Engines tried under steam \_\_\_\_\_  
 Main boiler safety valves adjusted \_\_\_\_\_ Thickness of adjusting washers \_\_\_\_\_  
 Material of Crank shaft Steel Identification Mark on Do. \_\_\_\_\_ Material of Thrust shaft Steel Identification Mark on Do. \_\_\_\_\_  
 Material of Tunnel shafts Steel Identification Marks on Do. \_\_\_\_\_ Material of Screw shafts Steel Identification Marks on Do. \_\_\_\_\_  
 Material of Steam Pipes \_\_\_\_\_ Test pressure \_\_\_\_\_

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
 The Engines and Boilers of this vessel were tested under special survey and the materials and workmanship are good. After completion here, they were shipped to Trieste where they will be fitted on board. When this has been done to the satisfaction of the Society's Surveyors, the machinery tested under steam, the spare gear checked and the requirements of the Rules in all other respects carried out; the vessel will in my opinion be eligible to have the record of **ALMC** (with date of completion) marked on the Society's Register Book.

GREENOCK

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

When applied for, 10/4/14  
 When received, 29/5/14  
 The amount of Entry Fee .. £ 27 : :  
 Special 36. Dues .. £ 46 : :  
 Donkey Boiler Fee .. £ .. : :  
 Travelling Expenses (if any) £ .. : :  
 Committee's Minute FRI. AUG. 13 1915  
 Assigned Deferred for completion

Wm. Austin  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.  
 FRI. 8-OCT. 1915  
 FRI. 11-FEB. 1916

