

Rpt. 4.

REPORT ON MACHINERY.

No. 17798

Received at London Office

THU. 31 MAR. 1921

Date of writing Report 19 March 1921 When handed in at Local Office 24 March 1921 Port of Greenock

No. in Survey held at Greenock Date, First Survey 10th Nov. 1919 Last Survey 18th March, 1921
Reg. Book. on the Old Woman (Number of Visits 85)

Master John S. Hineaid Built at Cadiz By whom built Echavanula & Larinaga When built 1921
Engines made at Greenock By whom made John S. Hineaid & Co when made 1921
Boilers made at Greenock By whom made John S. Hineaid & Co when made 1921

Registered Horse Power _____ Owners _____ Port belonging to _____
Nom. Horse Power as per Section 28 411 Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____

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 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 _____ If two liners are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush 60

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three
Dia. of Cylinders 25-41-68 Length of Stroke 45 Revs. per minute 70 Dia. of Screw shaft 13.75 Material of screw shaft Steel
as per rule 13.75 as fitted 14.75

Dia. of Tunnel shaft 12.41 Dia. of Crank shaft journals 13.04 Dia. of Crank pin 13.14 Size of Crank webs 19 1/2 x 9 1/2 Dia. of thrust shaft under collars 13 1/2 Dia. of screw 16.6 Pitch of Screw 1 P.O. No. of Blades 4 State whether moveable Yes Total surface 90 sq ft

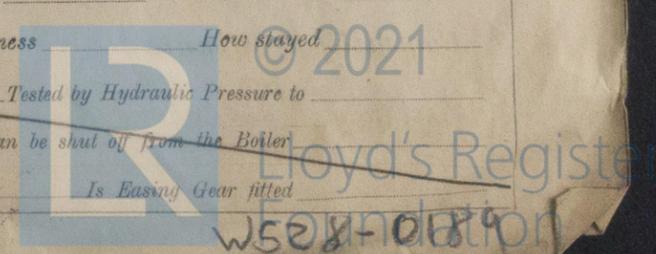
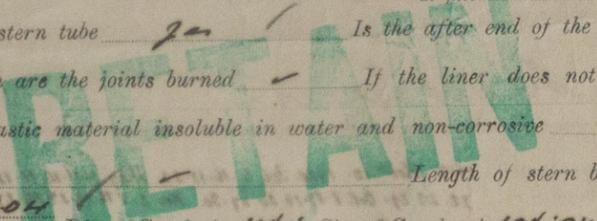
No. of Feed pumps Two Diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work Yes
No. of Bilge pumps Two Diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work Yes
No. of Donkey Engines Three Sizes of Pumps 11-10-6.8-1 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps _____
In Engine Room 4-3/2 In Holds, &c. 2-3/2

No. of Bilge Injections Two sizes 8 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room of size 3/2
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 _____ Are they Valves or Cocks _____
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 _____
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 _____
What pipes are carried through the bunkers _____ 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 _____ Is it fitted with a watertight door _____ worked from _____

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Port Talbot Steel Co. Ltd. & J. Scotland
Total Heating Surface of Boilers 5882.7 Is Forced Draft fitted Yes No. and Description of Boilers Two Single Ended
Working Pressure 180 lbs Tested by hydraulic pressure to 320 lbs Date of test 1/3/21 4/3/21 No. of Certificate 1542-1543
Can each boiler be worked separately Yes Area of fire grate in each boiler 74 sq ft No. and Description of Safety Valves to each boiler Two Spring Area of each valve 12.56 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 16.6 Length 11.9 Material of shell plates Steel
Thickness 1 1/2 Range of tensile strength 28 1/2 / 35 Are the shell plates welded or flanged Yes Descrip. of riveting: seams all on 45
long. seams all on 45 Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 9/8 Lap of plates or width of butt straps 20%
Per centages of strength of longitudinal joint 90% Working pressure of shell by rules 190 lbs Size of manhole in shell 16-12
Size of compensating ring Hanged No. and Description of Furnaces in each boiler 4 Deighton Material Steel Outside diameter 44 1/2
Length of plain part 9 1/2 Thickness of plates 9 1/2 Description of longitudinal joint welded No. of strengthening rings Corrug
Working pressure of furnace by the rules 196 lbs Combustion chamber plates: Material Steel Thickness: Sides 2 1/2 Back 1 1/2 Top 2 1/2 Bottom 2 1/2
Pitch of stays to ditto: Sides 10 1/2 x 8 1/2 Back 10 x 8 1/2 Top 10 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 196 lbs
Material of stays Steel Area at smallest part 2.03 Area supported by each stay 88 Working pressure by rules 206 lbs End plates in steam space: Material Steel Thickness 1 1/2 Pitch of stays 24-22 1/2 How are stays secured all nut Working pressure by rules 180 lbs Material of stays Steel
Area at smallest part 8.76 Area supported by each stay 540 Working pressure by rules 192 lbs Material of Front plates at bottom Steel
Thickness 1 1/2 Material of Lower back plate Steel Thickness 1 1/2 Greatest pitch of stays 18 1/2 Working pressure of plate by rules 207 lbs
Diameter of tubes 2 1/2 Pitch of tubes 4-3 1/2 Material of tube plates Steel Thickness: Front 1 1/2 Back 1 1/2 Mean pitch of stays 9.87
Pitch across wide water spaces 13 1/2 Working pressures by rules 189 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10 x 14 Length as per rule 35 1/2 Distance apart 10 1/2 Number and pitch of stays in each Three 8 1/2
Working pressure by rules 194 lbs 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 _____
Pitch 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 _____

Hineaid & Co



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - *See attached report*
clean check
120 lbs. One set coupling bolts. One set end pump valves. One set Bridge pump valves. One escape valve spring each size. One safety valve spring. 12 Condenser tubes 120 Jernister bolts nuts, etc.

The foregoing is a correct description,

FOR JOHN G. KINCAID & COY., LIMITED

Robert Green

Manufacturer.

Dates of Survey while building
During progress of work in shops - - 1919. Nov. 10. 1920. Feb. 6-16-18-25. May. 6-11-14-16-18-20. Jun. 3-11-14-17-23. July 14-19-23-27-30. Aug. 5-9-13-16-18-20-26. Sept. 4-8-9-10-13-15-22-23-29. Oct. 1-13-19-20-27-30. Nov. 2-7-16-19-25-26-27. Dec. 2-7-10-13-17-21-25-27-1921. Jan. 11-13-14-18-20-21-26-27-28-31. Feb. 1-6-7-10-14-16-18-25. Mar. 1-3-4-7-9-11-18.
Total No. of visits 85.

Is the approved plan of main boiler forwarded herewith? *Yes*

Dates of Examination of principal parts - Cylinders *31/1/21* Slides *8/2/21* Covers *25/1/21* Pistons *31/1/21* Rods *31/1/21*
Connecting rods *29/2/21* Crank shaft *8/11/20* Thrust shaft *2/11/20* Tunnel shafts _____ Screw shaft *1/2/21* Propeller *25/1/21*

Stern tube *8/2/21* Steam pipes tested _____ Engine and boiler seatings _____ Engines holding down bolts _____

Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____

Completion of fitting sea connections _____ Stern tube _____ Screw shaft and propeller _____

Main boiler safety valves adjusted _____ Thickness of adjusting washers _____

Material of Crank shaft *Steel* Identification Mark on Do. *398* Material of Thrust shaft *Steel* Identification Mark on Do. *398*

Material of Tunnel shafts *Steel* Identification Marks on Do. *398* Material of Screw shafts *Steel* Identification Marks on Do. *398*

Material of Steam Pipes _____ Test pressure _____

Is an installation fitted for burning oil fuel _____ 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? *Yes* If so, state name of vessel *Kincaid to Suez SA No 17766 28/12/20*

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

The Engines and Boiler of this Steamer have been constructed under special survey and have been shipped to Cadix where they will be placed on board the blue flagged steamer

GREENOOK

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 ... £ 5 : 0 :
Special ... £ 69 : 6 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *24/3/1921*
When received, *1.4.21*

James James
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *LASGOW. 30 MAR 1921*

Assigned *Deferred*