

REPORT ON MACHINERY.

No. 2921

Port of Meyors

FRI. AUG 27 1920

No. in Survey held at Meyors Haven Date, first Survey 1st June Last Survey 8th July 1920
Reg. Book. on the ST Alexander Scott (Number of Visits 9)

Master Smith Dock Co L^{td} Built at Middlesboro By whom built Smith Dock Co L^{td} When built 1917
Engines made at Middlesboro By whom made Smith Dock Co L^{td} when made 1917
Boilers made at Newcastle on Tyne By whom made Fawcett Leslie & Co L^{td} when made 1917
Registered Horse Power 87 Owners T Henderson, & J P Jones Port belonging to
Nom. Horse Power as per Section 28 87 Is Refrigerating Machinery fitted No Is Electric Light fitted ✓

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 12 1/2 x 21 x 35 Length of Stroke 26 Revs. per minute 110 Dia. of Screw shaft 7 5/8 Material of screw shaft Iron
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 ✓ 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 34"
Dia. of Tunnel shaft 6.57 Dia. of Crank shaft journals 6.9 Dia. of Crank pin 7 1/8 Size of Crank webs 14 x 4 1/2 Dia. of thrust shaft under collars 7 1/8 Dia. of screw 9.6 Pitch of screw 11-1 1/2 No. of blades 4 State whether moveable No Total surface 35.5
No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work Yes
No. of Donkey Engines 2 Sizes of Pumps 6" x 3 x 6 & 6" x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pump in Engine Room the 2" forward, 2" aft & the separate act. In Holds, &c. 1 1/2" from fore hold, and structural also separate 2" suction from all parts
No. of bilge injections 1 sizes 3 1/2 Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room Yes
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 cocks fitted with a spigot and brass covering plate Yes
What pipes are carried through the bunkers Forward Suction How are they protected Wood Casings
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 ✓ Is the screw shaft tunnel watertight ✓
Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 1619 Is forced draft fitted No
No. and Description of Boilers 1 Single ended Working Pressure 180 Tested by hydraulic pressure to 3 1/2
Date of test 9.7.17 Can each boiler be worked separately ✓ Area of fire grate in each boiler 50 No. and Description of safety valves to each boiler 2 Spring loaded Area of each valve 4.9 Pressure to which they are adjusted 185 Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 8" dia. of boilers 13.6 Length 10.6 Material of shell plates 3
Thickness 1 3/32 Range of tensile strength 28.32 Are they welded or flanged No Descrip. of riveting: cir. seams double long, seams TROBS
Diameter of rivet holes in long. seams 1 5/32 Pitch of rivets 8 Lap of plates or width of butt straps 17
Per centages of strength of longitudinal joint rivets 89.3 Working pressure of shell by rules 180 Size of manhole in shell 16 x 12"
Size of compensating ring 9 1 3/32 No. and Description of Furnaces in each boiler 3 Plain Material S Outside diameter 40 9/16
Length of plain part 81.5 Thickness of plates 25 Description of longitudinal joint Welded No. of strengthening rings ✓
Working pressure of furnace by the rules 188 Combustion chamber plates: Material S Thickness: Sides 11/16 Back 21/32 Top 11/16 Bottom 7/8
Pitch of stays to ditto: Sides 9 1/2 x 9 3/8 Back 9 x 9 Top 9 1/2 x 9 1/2 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 181
Material of stays S Diameter at smallest part 2.07 Area supported by each stay 90.25 Working pressure by rules 206 End plates in steam space: Material S Thickness 1 1/16 Pitch of stays 17 x 17 How are stays secured dn & w Working pressure by rules 181 Material of stays S
Diameter at smallest part 6.10 Area supported by each stay 295 Working pressure by rules 215 Material of Front plates at bottom S
Thickness 31/32 Material of Lower back plate S Thickness 15/16 Greatest pitch of stays 14 x 9 Working pressure of plate by rules 219
Diameter of tubes 3 1/2 Pitch of tubes 5 x 4 3/4 Material of tube plates S Thickness: Front 31/32 Back 7/8 Mean pitch of stays 10
Pitch across wide water spaces 14 Working pressures by rules 184 Girders to Chamber tops: Material S Depth and thickness of girder at centre 8 1/2 1 3/4 Length as per rule 32 Distance apart 9 1/2 Number and pitch of Stays in each 2 9 1/2
Working pressure by rules 197 Superheater or Steam chest; how connected to boiler 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 ✓
Stays 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

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THE MARGIN.

DONKEY BOILER— No. _____ 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 _____

Diag. 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. _____

Diag. 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: *2 bottom end bolts and nuts 4 top end bolts and nuts 2 main bearing bolts and nuts 1 set of coupling bolts and nuts 1 set of air feed, and bilge pump valves 1 set piston studs and nuts 4 Condenser tubes 3 boiler tubes 1 escape valve spring 1 Donkey pump valve*

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 - -

Is the approved plan of main boiler forwarded herewith _____

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

The machinery of this vessel was built under British Corporation Survey to plans and specification mutually approved by this Society, and B.C. The workmanship appears to good, and in my opinion is eligible to have class assigned L.M.C. 7. 20

The amount of Entry Fee. £ 10 : 10 : When applied for, 10 Aug. 1920

Special .. £ : : When received, N/A 19..

Donkey Boiler Fee .. £ : :

Travelling Expenses (if any) £ : :

J. H. Johnstone

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

Committee's Minute FRI. SEP. 3 1920

TUE. NOV. 15 1921

FRI. 2 NOV. 1923

FRI. 27 JAN. 1922

FRI. JUL 20 1923

TUES. 23 DEC 1924

FRI. 14 MAY 1926

Assigned

L.M.C. 7. 20

FRI. SEP. 14 1923

23 MAR 1927

Lloyd's Register Foundation