

REPORT ON MACHINERY

No. 71171

BOX CASE

Received at London Office

Date of writing Report 18th Aug 1918 When handed in at Local Office 18th Aug 1918 Port of NEWCASTLE-ON-TYNE
No. in Survey held at Farron Date, First Survey 17th Apr. Last Survey 6th Aug 1918
Reg. Book. 284 on the S.S. Clydebrae (Number of Visits 25) Gross 502 Tons Net 200

Master Built at Bowling By whom built Scott & Co
Engines made at Kirkcaldy By whom made Douglas & Grant when made 1918
Boilers made at Glasgow By whom made Ross & Duncan when made 1906
Registered Horse Power Owners North of England Port & Dumbarton Port belonging to Glasgow

Nom. Horse Power as per Section 28 86 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No.

Engines, &c.—Description of Engine Sea Leath rpt No 15421 No. of Cylinders 2 No. of Cranks 2
Dia. of Cylinders Length of Stroke Revs. per minute 70 Dia. of Screw shaft as per rule Material of screw shaft as fitted

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
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

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
collars Dia. of screw 9-2 Pitch of Screw 12-0 No. of Blades 4 State whether moveable Total surface 31 sq ft

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 4 4 4 4 4 4 4 4 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room No 2" diam In Holds, &c. No 2" diam

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump Pump is a separate Donkey Suction fitted in Engine room & size yes, 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

Are all connections with the sea direct in 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 Hold Suctions How are they protected Head bearing

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 10/5/18 of Stern Tube 3/5/18 Screw shaft and Propeller 10/5/18
Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record) Manufacturers of Steel Boiler made 1906 & originally
fitted on board the S.S. for Forseti

Total Heating Surface of Boilers 1562 sq ft Is Forced Draft fitted No No. and Description of Boilers One Single Ended
Working Pressure 180 lbs Tested by hydraulic pressure to Date of test 1/10/06 No. of Certificate 8367

Can each boiler be worked separately Area of fire grate in each boiler 52 sq ft No. and Description of Safety Valves to
each boiler No. direct opening Area of each valve 5.940 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 5'-0" 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
Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell

Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

Material of stays Diameter 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

Diameter 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
Pitch 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 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

If 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

002846-002852-0072

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:

Two top & two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, 2 fuel & 2 bilge pump valves & seats, assorted bolts & nuts & a few bars of iron.

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

Is the approved plan of main boiler forwarded herewith

Originally fitted by J. J. Forster

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

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

Identification Mark on Do.

Material of Thrust shaft

Identification Mark on Do.

Material of Tunnel shafts

Identification Marks on Do.

Material of Screw shafts

Identification Marks on Do.

Material of Steam Pipes

Copper

Test pressure

360 lb per sq. in.

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

If so, state name of vessel

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

The new engine made by Douglas & Grant 1918 and the old boiler made by Ross & Duncan 1906 with new safety valves, mountings & funnel have been securely fitted on board & satisfactorily tested under steam.

In my opinion the machinery of this vessel is now in good condition and eligible for record. L.M.C. 8.18. H.E. 1918. Boiler 1906, re-fitted 1918. 180 lb, B.S. 8.18. Tail shaft H.E. 8.18.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for,

8.10.18

When received,

28.8.18

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

Committee's Minute

Assigned



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