

REPORT ON MACHINERY.

No. 2578

Date of writing Report 19 When handed in at Local Office 12/1/10 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 26 May Last Survey 11 Jan 1912
 Reg. Book. New on the S/S "VICTORIA". (Trawler)
 Master Built at Middlesbrough By whom built Smiths Dock Co. Ltd. 12/5/10 Tons Gross 504 Net 1504 When built 1912
 Engines made at Sunderland By whom made Maclellan & Pollack Ltd (N° 222) when made 1912
 Boilers made at Sunderland By whom made Maclellan & Pollack Ltd (N° 222) when made 1912
 Registered Horse Power Owners J. Thomas Port belonging to Milford
 Nom. Horse Power as per Section 28 78 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12½ 20 34 Length of Stroke 24 Revs. per minute 105 Dia. of Screw shaft as per rule 1.35" Material of screw shaft steel
 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 2-6⅜"
 Dia. of Tunnel shaft as per rule 6.33" Dia. of Crank shaft journals as per rule 6.64" Dia. of Crank pin 6⅞" Size of Crank webs 4⅝ x 10½ Dia. of thrust shaft under
 collars 6⅞" Dia. of screw 9-3" Pitch of Screw 11-10½ No. of Blades 4 State whether moveable no Total surface 34 ft²
 No. of Feed pumps 1 Diameter of ditto 2¾ Stroke 12" Can one be overhauled while the other is at work
 No. of Bilge pumps 1 Diameter of ditto 2¾ Stroke 12" Can one be overhauled while the other is at work
 No. of Donkey Engines 2 Sizes of Pumps General " 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room two 2" In Holds, &c. slush well 2" (one).

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump b.p. Is a separate Donkey Suction fitted in Engine room & size 2½" ejector
 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 none
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks valves
 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 & slush well suction How are they protected Wood casing
 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 5.12.11. of Stern Tube 28-12-11 Screw shaft and Propeller 28-12-11
 Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door machy aft worked from

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel John Spencer & Sons Limited
 Total Heating Surface of Boilers 1446 ft² Is Forced Draft fitted no No. and Description of Boilers one single ended maine.
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 29-9-11 No. of Certificate 2956
 Can each boiler be worked separately Area of fire grate in each boiler 41 ft² No. and Description of Safety Valves to
 each boiler two spring loaded Area of each valve 3.98 ft² Pressure to which they are adjusted 185 Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 9" Mean dia. of boilers 12.9" Length 10-6" Material of shell plates steel
 Thickness 1½ Range of tensile strength 28½-32 kws Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R.
 long. seams TR, D, BS Diameter of rivet holes in long. seams 1½ Pitch of rivets 7¾ Lap of plates or width of butt straps 15¾
 Per centages of strength of longitudinal joint rivets 92.5 Working pressure of shell by rules 181 Size of manhole in shell 16" x 12"
 plate 85.5
 Size of compensating ring 28" x 26" x 1½" and Description of Furnaces in each boiler 3 plain Material steel Outside diameter 38"
 Length of plain part top 13½ Thickness of plates crown 3¼ Description of longitudinal joint welded No. of strengthening rings none
 bottom 8¼
 Working pressure of furnace by the rules 189 Combustion chamber plates: Material steel Thickness: Sides 1½ Back 1½ Top 1½ Bottom 1½
 Pitch of stays to ditto: Sides 9½ x 9 Back 9½ x 9 Top 9½ x 9½ If stays are fitted with nuts or riveted heads nuts Working pressure by rules 183
 Material of stays steel Diameter at smallest part 2070 Area supported by each stay 88.80 Working pressure by rules 209 End plates in steam space:
 Material steel Thickness 13½ Pitch of stays 18¾ x 18½ How are stays secured D.N. Working pressure by rules 182 Material of stays steel
 Diameter at smallest part 610 Area supported by each stay 34.70 Working pressure by rules 183 Material of Front plates at bottom steel
 Thickness 13½ Material of Lower back plate steel Thickness 13½ Greatest pitch of stays 12¾ x 9 Working pressure of plate by rules 187
 Diameter of tubes 3¼ Pitch of tubes 4½ x 4½ Material of tube plates steel Thickness: Front 13½ Back 13½ Mean pitch of stays 11¼
 Pitch across wide water spaces 13½ Working pressures by rules 186 Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 208½ x 7½ Length as per rule 31½ Distance apart 9½ Number and pitch of stays in each 2 @ 9¾
 Working pressure by rules 186 Superheater or Steam chest; how connected to boiler none 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
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 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

VERTICAL DONKEY BOILER— Manufacturers of Steel

| | | | | | |
|--------------------------------------|--|---------------------------|-------------------------------------|----------------------------------|-----------------------|
| No. | Description | | | | |
| Made at | By whom made | When made | Where fixed | | |
| 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 | | |
| Dia. of rivet holes | Whether punched or drilled | Pitch of rivets | Lap of plating | Per centage of strength of joint | Rivets Plates |
| 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:— Two connecting rod top and bottom end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed, air circulating and bilge pump valves, two feed check valves, iron and bolts of various sizes.

The foregoing is a correct description,

MAC COLL & POLLOCK LTD.

Manufacturer.

Dates of Survey while building
 During progress of work in shops - - 1911. May 26. June 13. 26. July 5. 21. 26. Aug. 24. Sept. 2. 22. 28. 29
 During erection on board vessel - - - - - Vols. Dec. 20. 28. 29. Jan. 3. 4. 8. 9. 10. 11. Feb. 1. 1912. Dec. 5. 1912. Jan. 23. 31. Feb. 6.
 Total No. of visits (22) 84

Is the approved plan of main boiler forwarded herewith

yes
 " " " donkey " " " none

Dates of Examination of principal parts—Cylinders 21-7-11 Slides 24-8-11 Covers 24-8-11 Pistons 21-7-11 Rods 24-8-11
 Connecting rods 21-7-11 Crank shaft 26-7-11 Thrust shaft 22-9-11 Tunnel shafts none Screw shaft 5-10-11 Propeller 22-9-11
 Stern tube 22-9-11 Steam pipes tested 4-1-12 Engine and boiler seatings 5, 12, 11, Engines holding down bolts 4-1-12
 Completion of pumping arrangements 9-1-12 Boilers fixed 8-1-12 Engines tried under steam 9-1-12
 Main boiler safety valves adjusted 9-1-12 Thickness of adjusting washers both 3/8"
 Material of Crank shaft steel Identification Mark on Do. 2015 H.S. 7 Material of Thrust shaft steel Identification Mark on Do. 2026 H.S. 7
 Material of Tunnel shafts none Identification Marks on Do. ✓ Material of Screw shaft steel Identification Marks on Do. 2025 H.S. 7
 Material of Steam Pipes solid drawn copper ✓ Test pressure 400 lbs per sq. in. ✓

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

To complete the machinery survey the slush well suction pipe and the winch steam and exhaust pipes require to be protected where they pass through the bunker.

Vessel proceeding to Middlesbrough. Surveyors advised at that port. The materials and workmanship are good.

The machinery of this vessel has been built under special survey and is eligible in our opinion for classification and the record L.M.C. 2.12 (with date) when the survey is complete.

The slush well suction pipe & the winch steam & exhaust pipes have been efficiently protected with wood casing where they pass through the bunker.

Vessel placed in dry dock & the propeller, stern bush & sea connection fastenings examined & found good on 23.1.12.

The amount of Entry Fee .. £ 1 : - :
 Special .. £ 11 : 14 :
 Donkey Boiler Fee .. £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 13.1.12
 When received, 2.3.12

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

Committee's Minute

TUE. FEB. 27. 1912

Assigned

MACCOLL & POLLOCK LTD.



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