Rpt. 4. No. 20085

REPORT ON MACHINERY.

Port of Glasgow — Received at London Office TUES. 29 JUL 1902

No. in Reg. Book 174 — Survey held at Glasgow — Date, first Survey 16 Septr. 01 — Last Survey 16 July 1902 (Number of Visits 46.)

on the S.S. "Barone Edmondo Vaij" — Tons: Gross 2858, Net 1840

Master — Built at Londonderry — By whom built Londonderry Shipg Co Ld — When built 1902

Engines made at Glasgow — By whom made Hutson & Sons, Ld — when made 1902

Boilers made at do — By whom made do — when made 1902

Registered Horse Power — Owners E. M. "Premuda" — Port belonging to

Nom. Horse Power as per Section 28 243 — Is Refrigerating Machinery fitted No — Is Electric Light fitted No

ENGINES, &c.—**Description of Engines** Triple Expansion **No. of Cylinders** 3 **No. of Cranks** 3

Dia. of Cylinders 22½. 38. 62 **Length of Stroke** 42" Revs. per minute 70 Dia. of Screw shaft as per rule 13·1, as fitted 13¼" Lgth. of stern bush 4'-5"

Dia. of Tunnel shaft as per rule 11·371, as fitted 11⅜" Dia. of Crank shaft journals as per rule 11·939", as fitted 12" Dia. of Crank pin 12" Size of Crank webs 7½" Dia. of thrust shaft under collars 12" Dia. of screw 15'-0" Pitch of screw 16'-0" No. of blades 4 State whether moveable No Total surface 72·5 ft

No. of Feed pumps 2 Diameter of ditto 3½" Stroke 24" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3½" Stroke 24" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps (10"×12"×10")(6"×4"×6") No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 - 3" In Holds, &c. 1 - 3½" - 4 - 3" - 2 - 2½"

No. of bilge injections 1 sizes 4" Connected to condenser, or to circulating pump pump Is a separate donkey suction fitted in Engine room & size Yes - 3½"

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 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

Belfast letter 31.7.02 CM

What pipes are carried through the bunkers none How are they protected —

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 Before launch Is the screw shaft tunnel watertight Yes

Is it fitted with a watertight door Yes worked from Top platform.

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?

BOILERS, &c.— (Letter for record (a)) **Total Heating Surface of Boilers** 3378 ft Is forced draft fitted No

No. and Description of Boilers Two Single Ended Multl **Working Pressure** 180 lbs Tested by hydraulic pressure to 360 lbs

Date of test 11.4.02 Can each boiler be worked separately Yes **Area of fire grate in each boiler** 56·75 ft No. and Description of safety valves to each boiler 2 Spring loaded Area of each valve 5·9" 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 abt. 12" Mean dia. of boilers 14'-3 Length 10-6 Material of shell plates Steel

Thickness 1 3/16" Range of tensile strength 27/32 Are they welded or flanged No Descrip. of riveting: cir. seams D. lap long. seams D. B. Strap

Diameter of rivet holes in long. seams 1¼" Pitch of rivets 9" Lap of plates or width of butt straps 18½"

Per centages of strength of longitudinal joint rivets 85·6, plate 86 Working pressure of shell by rules 180 lbs Size of manhole in shell 16"×12"

Size of compensating ring 31"×27" **No. and Description of Furnaces in each boiler** 3 Fox's Material steel Outside diameter 44"

Length of plain part top —, bottom — Thickness of plates crown, bottom 17/32" Description of longitudinal joint welded No. of strengthening rings —

Working pressure of furnace by the rules 186 Combustion chamber plates: Material steel Thickness: Sides 37/64" Back 9/16" Top 37/64" Bottom 13/16"

Pitch of stays to ditto: Sides 8¼"×7¾" Back 7¾"×7¾" Top 8¼"×7¾" If stays are fitted with nuts or riveted heads nuts inside Working pressure by rules 180

Material of stays Iron ~~Diameter~~ area at smallest part 2·03" Area supported by each stay 64" Working pressure by rules 190 End plates in steam space: Material steel Thickness 15/16" Pitch of stays 15½"×15" How are stays secured D. Nuts Working pressure by rules 180 Material of stays Iron

~~Diameter~~ area at smallest part 5·6" Area supported by each stay 232" Working pressure by rules 180 Material of Front plates at bottom steel

Thickness 3/4" Material of Lower back plate steel Thickness 3/4" Greatest pitch of stays 12½" Working pressure of plate by rules 180

Diameter of tubes 3½" Pitch of tubes 4¾" Material of tube plates steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 9½"

Pitch across wide water spaces 14" Working pressures by rules 183 Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 7¾"×1¾" Length as per rule 29½ Distance apart 7¾" Number and pitch of Stays in each 2 - 8¼"

Working pressure by rules 195 lb 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 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

[600—4-02—Copyable Ink.]

W699-0152

DONKEY BOILER— No. 1 Description Cylindrical Multitubulous

Made at Glasgow By whom made Hutson & Sons Ltd When made 1902 Where fixed Main Deck

Working pressure 80 lbs tested by hydraulic pressure to 160 lbs No. of Certificate 6226 Fire grate area 22·7 Description of safety valves Spring loaded

No. of safety valves 2 Area of each 4·9" Pressure to which they are adjusted 80 lbs If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler No Dia. of donkey boiler 8'-6" Length 8'-0" Material of shell plates Steel Thickness 5/8" Range of tensile strength 27/30 Descrip. of riveting long. seams T. R. Lap Dia. of rivet holes 13/16" Whether punched or drilled drilled Pitch of rivets 3 1/4"

Lap of plating 5 3/4" Per centage of strength of joint Rivets 61.5 Plates 75 Thickness of shell crown plates — Radius of do. — No. of Stays to do. —

Dia. of stays. — Diameter of furnace ~~Top~~ 30" ~~Bottom~~ Length of furnace 5'-3" Thickness of furnace plates 7/16" Description of joint welded Thickness of furnace crown plates — Stayed by — Working pressure of shell by rules 86 lbs

Working pressure of furnace by rules 91 lbs Diameter of uptake — Thickness of uptake plates — Thickness of water tubes —

SPARE GEAR. State the articles supplied :— Propeller shaft, propeller, set of piston rings two top end bolts & nuts, 2 bottom end bolts & nuts, set of coupling bolts, feed & bilge valves, quantity of assorted iron etc.

The foregoing is a correct description,
Hutson & Sons Ltd Manufacturer.

Dates of Survey while building — During progress of work in shops— 1901 Aug. Sep. 16. 17. 19. 21. 26. 28. Oct. 3 16. 22 26. Nov. 1. 4. 5. 12. 14. 19. 20. 22. 27. 30. &c.

During erection on board vessel — 9. 12. 19. 23. 1901 Jan. 16. 17. 24. 30. Feb. 8. 11. 13. 17. 24. Mar. 10. Apr. 1. 7. 11. 15. 29. May. 5. 20. Jn. 5.

Total No. of visits 46 / 27. Jy 3. 10. 16

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " " Yes

General Remarks (State quality of workmanship, opinions as to class, &c. Also 2 Forging Reports)

Material of screw shaft Iron Is the screw shaft fitted with a continuous liner the whole length of the stern tube No

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 Marlin about ¼" up.

The engines & boilers of this vessel have been constructed under Special Survey & are of good materials & workmanship. They have been securely fitted on board & satisfactorily tried under steam.

This vessel is in my opinion eligible for notation ✠ LMC 7.02 in the Register Book.

Glasgow

Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

It is submitted that this vessel is eligible for THE RECORD. ✠ LMC 7.02

C.M. 1.8.02

The amount of Entry Fee..	£ 2 : :	When applied for,	28/7/02
Special	£ 32 . 3 :	~~1st~~	
Donkey Boiler Fee	£ : :	When received,	
Travelling Expenses (if any)	£ :		1-8-02

2-8-02

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

Committee's Minute Glasgow. 28 JUL 1902 TUES. 5 AUG 1902

Assigned ✠ L.M.C. 7.02.
(Subject to classification of hull.)

MACHINERY CERTIFICATE WRITTEN.