

REPORT ON MACHINERY.

No. 15448

Port of GreenockNo. in Survey held at Port Glasgow

Reg. Book.

33. on the SCREW STEAMER SABBIA.Date, first Survey 19th Feb/08 Last Survey 29th July 1908

Received at London Office

WED. 19 AM 1908

(Number of Visits 63.)Master OlivieroBuilt at Port GlasgowBy whom built Glyde & B. ring 6th Lin.Tons { Gross 2802.14Net 1799.58When built 1908Engines made at Port Glasgow

By whom made

Glyde & B. ring 6th Lin.when made 1908Boilers made at Port Glasgow

By whom made

Glyde & B. ring 6th Lin.when made 1908

Registered Horse Power

Owners Nav. Libera Trieste Soc. in AzionePort belonging to TriesteNom. Horse Power as per Section 28 269Is Refrigerating Machinery fitted for cargo purposes NoIs Electric Light fitted No

ENGINES, &c.—Description of Engines

Triple ExpansionNo. of Cylinders ThreeNo. of Cranks ThreeDia. of Cylinders 23" - 38" - 61"Length of Stroke 42"Revs. per minute 90

Dia. of Screw shaft

as per rule 13.9"Material of IronIs 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 one length the liner does not fit tightly at the partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If twoliners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4' 4 1/2"Dia. of Tunnel shaft as per rule 11.49" Dia. of Crank shaft journals as per rule 12.05" Dia. of Crank pin 12 1/4" Size of Crank webs 22 1/2" x 7 1/2" Dia. of thrust shaft undercollars 12 1/4" Dia. of screw 15' 9" Pitch of Screw 16' 0" No. of Blades 4 State whether moveable No Total surface 80 sq. ft.No. of Feed pumps 2 Diameter of ditto 3 1/4" Stroke 21" Can one be overhauled while the other is at work YesNo. of Bilge pumps 2 Diameter of ditto 4" Stroke 21" Can one be overhauled while the other is at work YesNo. of Donkey Engines Three Sizes of Pumps (6" x 6") (5 1/2" x 5 1/2") (8" x 8") No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room Three: 1-3 1/2" dia and 2-3" dia In Holds, &c. No. 1 Hold: Two-3" dia. No. 2 Hold: Two-3" dia.No. 3 Hold: one-3 1/2" dia & two-3" dia. Tunnel Well: one-2 1/2" dia.No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes: 3 1/2"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 YesAre all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks BothAre 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 AboveAre 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 YesWhat pipes are carried through the bunkers None How are they protected YesAre all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges YesDates of examination of completion of fitting of Sea Connections 11/6/08 of Stern Tube 11/6/08 Screw shaft and Propeller 9/4/08Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper platformBOILERS, &c.—(Letter for record \$) Manufacturers of Steel Steel 67 of ScotlandTotal Heating Surface of Boilers 4244 Is Forced Draft fitted No No. and Description of Boilers 2: Cylindrical: Single EndWorking Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 4/12/08 No. of Certificate S.893 & 894Can each boiler be worked separately Yes Area of fire grate in each boiler 60 sq. ft. No. and Description of Safety Valves toeach boiler 2: Direct Spring Area of each valve 4.06" Pressure to which they are adjusted 185 lbs Are they fitted with easing gear YesSmallest distance between boilers on uptakes and bunkers or woodwork 12" Mean dia. of boilers 15' 6" Length 10' 6" Material of shell plates SteelThickness 1 1/4" Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Lap Doublelong. seams Double Butt Strap Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 9 3/8" 4 7/8" Top of plates or width of butt straps 19 1/2"Per centages of strength of longitudinal joint rivets 86 plate 86 Working pressure of shell by rules 189 lbs Size of manhole in shell 16" x 12"Size of compensating ring plate flanged No. and Description of Furnaces in each boiler 3: Mounison Material Steel Outside diameter 48 1/2"Length of plain part top 6' 9" Thickness of plates crown 9" Description of longitudinal joint Weld No. of strengthening rings NoneWorking pressure of furnace by the rules 182 lbs Combustion chamber plates: Material Steel Thickness: Sides 19" Back 19" Top 19" Bottom 3 1/4"Pitch of stays to ditto: Sides 7 3/8" x 9" Back 8 1/2" x 8" Top 7 3/8" x 9" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 185 lbsMaterial of stays Steel Diameter at smallest part 1 3/8" + 1 1/4" Area supported by each stay 66" Working pressure by rules 180 lbs End plates in steam space:Material Steel Thickness 1 1/8" Pitch of stays 14" x 18 1/2" How are stays secured Double Nuts Working pressure by rules 185 lbs Material of stays SteelDiameter at smallest part 2 3/4" Area supported by each stay 308" Working pressure by rules 189 lbs Material of Front plates at bottom SteelThickness 1 3/16" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 14 1/2" Working pressure of plate by rules 191 lbsDiameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 1 1/8" Back 1 1/16" Mean pitch of stays 9 1/2"Pitch across wide water spaces 15 1/2" Working pressures by rules 189 lbs 188 lbs Girders to Chamber tops: Material Steel Depth andthickness of girder at centre 9 1/2" x 1 3/4" Length as per rule 30 3/8" Distance apart 9" Number and pitch of stays in each 3: 7 3/8"Working pressure by rules 237 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler workedseparately Yes Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivetholes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates ThicknessIf stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayedWorking pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

If not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?

Form 24-1.

Lloyd's Register

Foundation

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. *See separate Description*

Made at *Rt. attach* 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

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 Stayed by

Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

SPARE GEAR. State the articles supplied:— Propeller and shaft, 2 main Bearing Bolts, 2 Crosshead Bolts, 2 Crank pin Bolts, 1 set Coupling Bolts, 1 set Feed pump valves, 1 set Bilge pump valves, 1 set Piston Springs, 1 set Escape valve springs, 1 m. Boiler Safety valve spring, 1 set Boiler St. Springs, 1 set Air pump valves, 1 set Circulating pump valves. Bolts nuts and Iron of various sizes.

THE CLYDE SHIPBUILDING & ENGINEERING CO. LIMITED,

The foregoing is a correct description,

Manufacturer.

John S. Dunlop Secretary

Dates of Survey while building During progress of work in shops— 1908. Feb 19. 24. 26. 28. Mar 2. 4. 6. 11. 17. 19. 20. 25. April 2. 3. 7. 15. 17. 20. 21. 22. 23. 27. 28. 29. 30. May 5. 7. 8. 11. 14. 18. 19. 20. 25. 26. 27. 28. 29. June 3. 4. 8. 10. 11. 12. 16. 18. 19. 23. 25. 29. 30. July 9. 10. 13. 14. 16. 20. 21. 22. 24. 27. 28. 29. During erection on board vessel— Total No. of visits 62.

Is the approved plan of main boiler forwarded herewith Geo. ✓

“ “ “ donkey “ “ “ Geo. ✓

Dates of Examination of principal parts—Cylinders 29/7/08 Slides 12/6/08 Covers 29/7/08 Pistons 7/5/08 Rods 28/4/08

Connecting rods 24/4/08 Crank shaft 18/5/08 Thrust shaft 7/5/08 Tunnel shafts 7/5/08 Screw shaft 11/6/05 Propeller 11/6/08

Stern tube 7/5/08 Steam pipes tested 21/7/08 Engine and boiler seatings 11/6/08 Engines holding down bolts 18/7/08

Completion of pumping arrangements 27/7/08 Boilers fixed 18/7/08 Engines tried under steam 29/7/08

Main boiler safety valves adjusted 27/7/08 Thickness of adjusting washers 5 3/8 P 3/8 5 7/16 P 7/16 5 11/32 P 3/2

Material of Crank shaft Steel Identification Mark on Do. 727 Material of Thrust shaft Steel Identification Mark on Do. 728

Material of Tunnel shafts Steel Identification Marks on Do. 729-734 Material of Screw shafts Iron Identification Marks on Do. 732-3

Material of Steam Pipes Copper Test pressure 360 lbs.

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

The Engines and Boilers of this vessel have been built under Special Survey and the materials and workmanship are good. When completed they were examined under steam and found to work satisfactorily.

The Machinery throughout is now in good and efficient condition and eligible in our opinion to have the record of LMC 7, 08. marked in the Society's Register Book.

It is submitted that this vessel is eligible for THE RECORD + LMC 7.08.

JWD 21/8/08 *DRR* 21/8/08

The amount of Entry Fee.. £ 2: : When applied for, Special .. £ 33. 9: 10/8/1908 Donkey Boiler Fee .. £ : : When received, Travelling Expenses (if any) £ : : 12/8/1908

R. Austin *R. Elliott* Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute GLASGOW 18 AUG. 1908

Assigned + LMC 7, 08.

MACHINERY CERTIFICATE WRITTEN 19.8.08



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