

REPORT ON MACHINERY.

No. 16955

Port of HullReceived at London Office WELL 5 JUL 1905No. in Survey held at HullDate, first Survey Mar 7thLast Survey 26th June 1905

Reg. Book.

433 on the Steel S. K. Viola(Number of Visits 24)Gross 228Tons Net 91When built 1905Master F. Crocker Built at SelbyBy whom built Lochane SonsEngines made at Hull By whom made Amos Smithwhen made 1905Boilers made at Hull By whom made Amos SmithRegistered Horse Power 608Owners Edwin BaconPort belonging to GrimbyNom. Horse Power as per Section 28 608Is Refrigerating Machinery fitted for cargo purposes NoIs Electric Light fitted NoENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3Dia. of Cylinders 12" - 21" - 34" Length of Stroke 24" Revs. per minute 112 Dia. of Screw shaft 7 1/8" Material of screw shaft 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 tightin 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 If twoliners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 36"Dia. of Tunnell shaft 6 1/8" as per rule 6 1/8" Dia. of Crank shaft journals 6 1/8" as per rule 6 1/8" Dia. of Crank pin 6 1/8" Size of Crank webs 10 1/2" x 4 3/8" Dia. of thrust shaft undercollars 6 1/8" Dia. of screw 8" - 6" Pitch of screw 10" - 6" No. of blades 4 State whether moveable No Total surface ✓No. of Feed pumps One Diameter of ditto 2 7/8" Stroke 13" Can one be overhauled while the other is at work YesNo. of Bilge pumps One Diameter of ditto 3" Stroke 13" Can one be overhauled while the other is at work YesNo. of Donkey Engines One Sizes of Pumps 3" x 6" No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room One Two inches ✓ In Holds, &c. One each 2" to each slush

well, & to hold, and ejector suction from engine room bilge

No. of bilge injections 1 sizes 3" Connected to condenser, or to circulating pump Yes 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 0Are 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 hold suction How are they protected wood casingAre 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 YesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock before launching Is the screw shaft tunnel watertight NoneIs it fitted with a watertight door worked fromBOILERS, &c.—(Letter for record 8) Total Heating Surface of Boilers 1164 Is forced draft fitted NoNo. and Description of Boilers One cyl. Multi. Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbsDate of test 15.5.05 Can each boiler be worked separately Yes Area of fire grate in each boiler 34 No. and Description of safety valves toeach boiler Two Spring Area of each valve 3.976 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear YesSmallest distance between boilers or uptakes and bunkers or woodwork 6" Mean dia. of boilers 12' 0" Length 10' 0" Material of shell plates SteelThickness 1" Range of tensile strength 28-32 Are they welded or flanged Yes Descrip. of riveting: cir. seams L. D. long. seams D. B. S. L. B.Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7.63" Lap of plates or width of butt straps 16 1/4"Per centages of strength of longitudinal joint rivets 96.5 Working pressure of shell by rules 180 lbs Size of manhole in shell 16" x 12"Size of compensating ring 40" x 30" x 1" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 42 3/4"Length of plain part 5-7" Thickness of plates crown 1/8" bottom 1/16" Description of longitudinal joint Welded No. of strengthening rings 0Working pressure of furnace by the rules 190 lbs Combustion chamber plates: Material Steel Thickness: Sides 3/32" Back 1/16" Top 1/16" Bottom 3/32"Pitch of stays to ditto: Sides 9 1/4" x 7" Back 9 1/4" x 8 1/2" Top 7 1/2" x 8" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 207 lbsMaterial of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 64.75 Working pressure by rules 217 lbs End plates in steam space:Material Steel Thickness 3/32" Pitch of stays 16" x 15 1/2" How are stays secured screwed into end plates Working pressure by rules 181 lbs Material of stays SteelDiameter at smallest part 2 3/4" Area supported by each stay 244 Working pressure by rules 206 lbs Material of Front plates at bottom SteelThickness 29" Material of Lower back plate Steel Thickness 15" Greatest pitch of stays 14" Working pressure of plate by rules 180 lbsDiameter of tubes 3 1/2" Pitch of tubes 5" x 4 1/4" Material of tube plates Steel Thickness: Front 29" Back 32" Mean pitch of stays 9 1/2" x 10"Pitch across wide water spaces 14" Working pressures by rules 182 lbs Girders to Chamber tops: Material Steel Depth andthickness of girder at centre 7 3/4" x 1" Length as per rule 2' 9" Distance apart 8" Number and pitch of Stays in each 3 - 7 1/2"Working pressure by rules 180 lbs Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler workedseparately Yes Diameter 18" Length 18" Thickness of shell plates 1/16" Material Steel Description of longitudinal joint Welded Diam. of rivetholes 1/8" Pitch of rivets 1 1/8" Working pressure of shell by rules 180 lbs Diameter of flue 18" Material of flue plates Steel Thickness 1/16"If stiffened with rings Yes Distance between rings 18" Working pressure by rules 180 lbs End plates: Thickness 1/16" How stayed YesWorking pressure of end plates 180 lbs Area of safety valves to superheater 18" Are they fitted with easing gear YesWorking pressure of end plates 180 lbs Area of safety valves to superheater 18" Are they fitted with easing gear YesWorking pressure of end plates 180 lbs Area of safety valves to superheater 18" Are they fitted with easing gear YesWorking pressure of end plates 180 lbs Area of safety valves to superheater 18" Are they fitted with easing gear YesWorking pressure of end plates 180 lbs Area of safety valves to superheater 18" Are they fitted with easing gear YesWorking pressure of end plates 180 lbs Area of safety valves to superheater 18" Are they fitted with easing gear YesWorking pressure of end plates 180 lbs Area of safety valves to superheater 18" Are they fitted with easing gear YesWorking pressure of end plates 180 lbs Area of safety valves to superheater 18" Are they fitted with easing gear Yes

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

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

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

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:—Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each air circulating feed & bilge pump valves, a quantity of assorted bolts & nuts etc.

The foregoing is a correct description,

FOR AMOS & SMITH

Manufacturer.

W.S. Hyde

MANAGER

Dates of Survey while building

During progress of work in shops—	1905:—Mar 7. 11. 15. 17. 21. 30 Apr 3. 11. 19	Apr 29. May 5. 11. 15. 19.
During erection on board vessel—	May 24. 27. 30 Jun 7. 16. 19. 21. 22. 24. 26.	
Total No. of visits	24.	

Is the approved plan of main boiler forwarded herewith Yes

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery & boiler of this vessel have been inspected, throughout, construction, in accordance with the Society's Rules. The material and workmanship are good. The boiler tested by hydraulic pressure, and with the engines placed on board, and tested under steam. They are now in good order, and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notification of L.M.C. 6.05 in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD L.M.C. 6.05

Wm. S. Hyde
5.7.05

The amount of Entry Fee... £ 1 : : : When applied for, 4/7/1905

Special ... £ 10 : 7 : : : When received, 31.7.05

Donkey Boiler Fee ... £ - : - : : : 31.7.05

Travelling Expenses (if any) £ - : 8 2 : : : 31.7.05

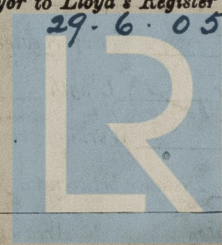
Committee's Minute

FRI. 7 JUL 1905

Assigned

+ L.M.C. 6.05

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



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Lloyd's Register
Foundation

MACHINERY CERTIFICATE
WRITTEN.

Certificate (if required) to be sent to Hull