

## REPORT ON MACHINERY.

No. 25993.

Received at London Office THU. MAR. 27. 1913

Date of writing Report 19 When handed in at Local Office 28. 3. 1913 Port of Hull.  
No. in Survey held at Hull. Date, First Survey Sep. 23. Last Survey Mar 12. 1913.  
Reg. Book. (Number of Visits 33)  
Name of the Ship S.S. K. "VENATOR" new "VENATOR" Tons Gross 293 Net 135  
Master Built at Hull By whom built Gough & Sons Ltd. When built 1913.  
Engines made at By whom made Messrs. Charles & Thomas & Co. Ltd. when made 1913.  
Boilers made at Hull By whom made Messrs. Charles & Thomas & Co. Ltd. when made 1913.  
Registered Horse Power Owners Messrs. J. & W. Gough & Sons Ltd. Port belonging to Grimsby.  
Nom. Horse Power as per Section 28 79 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 22" - 22" - 36" Length of Stroke 24" Revs. per minute 113 Dia. of Screw shaft as per rule 4" as fitted 4" Material of screw shaft Iron  
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 Yes 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 Yes If two  
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 36"  
Dia. of Tunnel shaft as per rule 6" as fitted 6" Dia. of Crank shaft journals as per rule 4" as fitted 4" Dia. of Crank pin 4" Size of Crank webs 4" Dia. of thrust shaft under  
collars 4" Dia. of screw 9" Pitch of Screw 11" No. of Blades 4 State whether moveable No Total surface 29 sq ft  
No. of Feed pumps 1 Diameter of ditto 2" Stroke 24" Can one be overhauled while the other is at work Yes  
No. of Bilge pumps 1 Diameter of ditto 2" Stroke 24" Can one be overhauled while the other is at work Yes  
No. of Donkey Engines 1 Sizes of Pumps 5" x 2 3/4" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room Two 2" one forward & one aft. In Holds, &c. One 2" aft. duct with, on 2" for duct with  
on 2" for duct, on 2" for duct. Gudgeon suction from all bilges with discharge on deck.  
No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pumps Is a separate Donkey Suction fitted in Engine room & size 2 1/2" gudgeon  
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 0  
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  
What pipes are carried through the bunkers Hold 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 9.1.13 of Stern Tube 9.1.13 Screw shaft and Propeller 9.1.13  
Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Tubes Schmidt, Mann & Co. of Hamburg.  
Total Heating Surface of Boilers 1295 sq ft Is Forced Draft fitted No No. and Description of Boilers One cyl. multi. single ended.  
Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 20.2.13 No. of Certificate 1963.  
Can each boiler be worked separately Area of fire grate in each boiler 48 sq ft No. and Description of Safety Valves to  
each boiler Two Spring Area of each valve 4.9 sq in Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear Yes.  
Smallest distance between boilers or uptakes and bunkers on woodwork 6" Mean dia. of boilers 13.6" Length 10.6" Material of shell plates S.  
Thickness 1 3/8" Range of tensile strength 29 tons Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams D.P.S.  
long. seams Y.P.D.P.S. Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 8" Lap of plates on width of butt straps 16 5/8"  
Per centages of strength of longitudinal joint rivets 85 plate 85 Working pressure of shell by rules 206 lbs. Size of manhole in shell 16" x 12"  
Size of compensating ring 4" x 1 3/8" No. and Description of Furnaces in each boiler 3 plain Material S. Outside diameter 38"  
Length of plain part top 6.4" bottom 16" Thickness of plates crown 25" bottom 22" Description of longitudinal joint Weld No. of strengthening rings  
Working pressure of furnace by the rules 204 lbs. Combustion chamber plates: Material S. Thickness: Sides 23" Back 23" Top 23" Bottom 23"  
Pitch of stays to ditto: Sides 9 1/2" x 8 1/2" Back 10 1/2" x 8 1/2" Top 10 1/2" x 8 1/2" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 205 lbs. End plates in steam space:  
Material of stays S. Diameter at smallest part 2.40" Area supported by each stay 100 sq in Working pressure by rules 216 lbs. Material of stays S.  
Material S. Thickness 1 3/8" Pitch of stays 18" x 19" How are stays secured D.P.S.W. Working pressure by rules 205 lbs. Material of Front plates at bottom S.  
Diameter at smallest part 7.50" Area supported by each stay 346.5 sq in Working pressure by rules 225 lbs. Working pressure of plate by rules 206 lbs.  
Thickness 1 3/8" Material of Lower back plate S. Thickness 29" Greatest pitch of stays 4 1/2" x 8" Working pressure of plate by rules 206 lbs.  
Diameter of tubes 3 1/2" Pitch of tubes 5" x 5" Material of tube plates S. Thickness: Front 15" Back 8" Mean pitch of stays 10"  
Pitch across wide water spaces 14" x 14" Working pressures by rules 215 lbs. Girders to Chamber tops: Material S. Depth and  
thickness of girder at centre 10 3/4" - 1 1/2" Length as per rule 2' - 11 1/8" Distance apart 10 1/2" Number and pitch of stays in each 2 - 8 1/2"  
Working pressure by rules 211 lbs. 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



# 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 each top & bottom and connecting rod bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each fuel & bilge pump valves, iron of various sizes, a quantity of assorted bolts & nuts etc.*

The foregoing is a correct description,

*P. pro* CHARLES D. HOLMES & Co. LTD.

Manufacturer.

*Arthur Holmes* DIRECTOR

Dates of Survey while building: During progress of work in shops: 1912:— *Jan. 23, Nov. 4, 13, 15, 26, 28, Dec. 6, 10, 17, 18, 24, 30, 1913:— Jan. 1, 8, 9, 10, 14, 17, 22, 30*

During erection on board vessel: *Jan. 31, Feb. 4, 5, 12, 17, 19, 20, 28, Mar. 4, 5, 7, 12.*

Total No. of visits: *33.*

Is the approved plan of main boiler forwarded herewith *yes*

Dates of Examination of principal parts—Cylinders *1.1.13* Slides *12.2.13* Covers *14.2.13* Pistons *8.1.13* Rods *12.2.13*

Connecting rods *12.2.13* Crank shaft *10.1.13* Thrust shaft *14.2.13* Tunnel shafts *✓* Screw shaft *18.12.12* Propeller *18.12.12*

Stern tube *18.12.12* Steam pipes tested *5.3.13* Engine and boiler seatings *9.1.13* Engines holding down bolts *4.3.13*

Completion of pumping arrangements *12.3.13* Boilers fixed *7.3.13* Engines tried under steam *4.3.13*

Main boiler safety valves adjusted *4.3.13* Thickness of adjusting washers *Forward  $\frac{3}{8}$ " -  $\frac{1}{2}$ "*

Material of Crank shaft *Iron* Identification Mark on Do. *Nº 98876.D* Material of Thrust shaft *S.* Identification Mark on Do. *Nº 98876.D*

Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Iron* Identification Marks on Do. *Nº 98876.D*

Material of Steam Pipes *Solid drawn copper* Test pressure *400 lbs per sq. inch hydraulic.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines & boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials & workmanship are sound & good. The boiler tested by hydraulic pressure & with the engines run on board & tested under steam they are now in good order & safe working condition & respectfully submitted as being eligible in my opinion to be classed with the notation of 'L.M.C. 3.13' in the Register Book.*

*It is submitted that this vessel is eligible for THE RECORD + L.M.C. 3.13.*

*J.M. [Signature] 31/3/13.*

The amount of Entry Fee .. £ 1 : 0 : When applied for. *26.3-1913*

Special .. £ 11 : 17 : When received. *31/3/13*

Donkey Boiler Fee .. £ : : *✓*

Travelling Expenses (if any) £ : 6/1 : *✓*

Committee's Minute TUE. APR. 1--1913

Assigned

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