

REPORT ON MACHINERY

No. 28509

Received at London Office

SAT. MAY. 22. 1915

Date of writing Report 4th May 1915 When handed in at Local Office 15-5-15 Port of Hull

No. in Survey held at Hull Date, First Survey 19-11-14 Last Survey 27-4-15

Reg. Book. 30 sup. on the steel Se "KINGS GREY." CDH 1029 (Number of Visits 35) Tons { Gross 338 Net 189 When built 1915

Master Beverley Built at Beverley By whom built Coak. Melton & General

Engines made at Hull By whom made C. D. Holmes & Co. when made 1915

Boilers made at Hull By whom made C. D. Holmes & Co. when made 1915

Registered Horse Power 92 Owners A. L. Black Port belonging to Grimsby

Nom. Horse Power as per Section 28 92 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

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

Dia. of Cylinders 13" 23" 27" 37" Length of Stroke 26" Revs. per minute 803 Dia. of Screw shaft 8 1/2" Material of screw shaft S.

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 yes Length of stern bush 3'-4"

Dia. of Tunnel shaft 7.04" Dia. of Crank shaft journals 7.39" Dia. of Crank pin 7 3/4" Size of Crank web 4 1/2 x 5" Dia. of thrust shaft under collars 7 1/4"

Dia. of screw 9'-6" Pitch of Screw 11'-0" No. of Blades 4 State whether moveable no Total surface 325'

No. of Feed pumps 1 Diameter of ditto 3" Stroke 14 3/4" Can one be overhauled while the other is at work yes

No. of Bilge pumps 1 Diameter of ditto 3" Stroke 14 3/4" Can one be overhauled while the other is at work yes

No. of Donkey Engines Two Sizes of Pumps 5" x 2 1/4" duplex 6" x 4" No. and size of Suctions connected to both Bilge and Donkey pumps Five 2" Forehold. Main Fish room

In Engine Room Two 2" One forward one aft. In Holds, &c. Five 2" Forehold. Main Fish room

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump as a separate Donkey Suction fitted in Engine room & size 3" 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 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 Stold Suctions How are they protected Wood Casings

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 1.12.14 of Stern Tube 1.12.14 Screw shaft and Propeller 1.12.14

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door worked from

Manufacturers of Steel Messrs. Stewart & Lloyd's & Co.

BOILERS, &c.—(Letter for record no) Is Forced Draft fitted no No. and Description of Boilers No Single-ended.

Total Heating Surface of Boilers 1557 sq ft Tested by hydraulic pressure to 400 lbs. Date of test 26-2-15 No. of Certificate 3061

Working Pressure 200 lbs. Area of fire grate in each boiler 41 sq ft No. and Description of Safety Valves to each boiler 2 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 or woodwork 6" dia. of boilers 13'-6" Length 10-8" Material of shell plates S.

Thickness 1 3/32" Range of tensile strength 28 tons Are the shell plates welded or flanged yes Descrip. of riveting: cir. seams BR

long. seams J.R. & B. Diameter of rivet holes in long. seams 1 3/32" Pitch of rivets 8 1/16" Lap of plates or width of butt straps 17 1/2"

Per centages of strength of longitudinal joint rivets 88 Working pressure of shell by rules 201 Size of manhole in shell 16" x 12"

Size of compensating ring 7" x 1 3/32" No. and Description of Furnaces in each boiler 3 plain Material S. Outside diameter 3'-4"

Length of plain part 6'-9" Thickness of plates 13/16" Description of longitudinal joint welded No. of strengthening rings 3/4"

Working pressure of furnace by the rules 203 Combustion chamber plates: Material S. Thickness: Sides 3/4" Back 3/8" Top 1/16" Bottom 3/4"

Pitch of stays to ditto: Sides 9 x 7" Back 9 x 8 1/2" Top 7 x 9 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 230

Material of stays S. Diameter at smallest part 2.07" Area supported by each stay 76.5 Working pressure by rules 243 End plates in steam space: Material S. Thickness 1 1/4" Pitch of stays 17 1/2" x 17" How are stays secured BR & MS Working pressure by rules 248 Material of stays S.

Diameter at smallest part 7.5" Area supported by each stay 297.5 Working pressure by rules 260 Material of Front plates at bottom S.

Thickness 1" Material of Lower back plate S. Thickness 1" Greatest pitch of stays 13 3/4" x 9" Working pressure of plate by rules 256

Diameter of tube 3 1/2" Pitch of tubes 5 x 4 3/4" Material of tube plates S. Thickness: Front 1" Back 7/8" Mean pitch of stays 9 3/4"

Pitch across wide water spaces 13 3/4" Working pressures by rules 203 Girders to Chamber tops: Material S. Depth and thickness of girder at centre 10 x 1 3/4" Length as per rule 2-9 7/8" Distance apart 9 1/2" Number and pitch of stays in each 30 7 1/2"

Working pressure by rules 215 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked separately

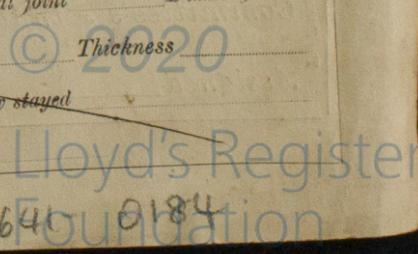
Diameter 13 3/4" Length 13 3/4" Thickness of shell plates 1" Material S. Description of longitudinal joint S. Diam. of rivet holes 1 3/32"

Pitch of rivets 8 1/16" Working pressure of shell by rules 203 Diameter of flue 13 3/4" Material of flue plates S. Thickness 1"

If stiffened with rings yes Distance between rings 13 3/4" Working pressure by rules 203 End plates: Thickness 1" How stayed yes

Working pressure of end plates 215 Area of safety valves to superheater 41 sq ft Are they fitted with easing gear yes

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



IS A DONKEY BOILER FITTED?

no.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two each top & bottom end connecting rod bolts & nuts, two main bearing bolts and nuts, one set each feed and bilge pump valves, iron of various sizes, a quantity of assorted bolts, nuts etc.

The foregoing is a correct description,

Pro CHARLES D. HOLMES & CO LTD.
S Arthur Holmes

DIRECTOR

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1914 - Nov 19. 25. 27. Dec 1. 10. 22. 30. 1915: - Jan 5. 7. 15. 20. 27. 28 Feb 2. 4. 11. 16. During erection on board vessel - 19. 23. 25. 26. Mar 1. 8. 11. 12. 18. 24. Apr 7. 8. 12. 17. 21. 22. 24. 27. Total No. of visits 35

Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts - Cylinders 25. 2. 15. Slides 25. 2. 15. Covers 11. 3. 15. Pistons 11. 3. 15. Rods 11. 3. 15. Connecting rods 11. 3. 15. Crank shaft 25. 2. 15. Thrust shaft 25. 11. 14. Tunnel shafts 25. 11. 14. Screw shaft 19. 11. 14. Propeller 19. 11. 14. Stern tube 19. 11. 14. Steam pipes tested 8. 4. 15. Engine and boiler seatings 1. 12. 14. Engines holding down bolts 7. 4. 15. Completion of pumping arrangements 24. 4. 15. Boilers fixed 7. 4. 15. Engines tried under steam 17. 4. 15. Main boiler safety valves adjusted 17. 4. 15. Thickness of adjusting washers PV 3/8 SV 1/32.

Material of Crank shaft S. Identification Mark on Do. 1436. Material of Thrust shaft S. Identification Mark on Do. 6612.

Material of Tunnel shafts S. Identification Marks on Do. 6612. Material of Screw shafts S. Identification Marks on Do. 1396.

Material of Steam Pipes Copper solid drawn. Test pressure 400 lbs. hyd. press.

Is an installation fitted for burning oil fuel. Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case no. If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The engines and boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are sound and good. The boiler tested by hydraulic pressure and with the engines secured on board & started 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 notation of LMC 4. 15. in the Register book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 4. 15.

JWD 25/5/15

ARSK

The amount of Entry Fee ... £ 1 : : When applied for. Special ... £ 13 : 16 : 21. 5 - 19. 15 Donkey Boiler Fee ... £ : : When received. Travelling Expenses (if any) £ : 2. : 31/5/15 1915 16/15

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

Committee's Minute - WED. MAY. 26. 1915.

Assigned + LMC 4. 15.

MACHINERY CERTIFICATE



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Spull

Certificate (if required) to be sent to The Surveyors requested not to write on or below the space for Committee's Minute.