

REPORT ON MACHINERY.

No. 28425
TUE. APR. 20, 1915

Received at London Office

Date of writing Report 3rd April 15 When handed in at Local Office 10/4/15 Port of Hull

Date, First Survey Nov. 9/14 Last Survey 31. 3. 1915

eg. Book Life on the steel sea K. "WELBECK" (Number of Vistas 1084)

Master Telby Built at Selby By whom built Cochrane & Sons Ltd Tons { Gross 302 Net 157 When built 1915

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

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

Registered Horse Power 84 Owners E. G. Grant Port belonging to Grimsby

nom. Horse Power as per Section 28 84 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" 37" Length of Stroke 24" Revs. per minute 112 Dia. of Screw shaft 7.64 Material of steel

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

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

tween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If two

vers are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 2-11 1/2"

Dia. of Tunnel shaft 7.8 Dia. of Crank shaft journals 7.19 Dia. of Crank pin 7 3/8 Size of Crank web 4 1/2 x 14 1/2 Dia. of thrust shaft under

llars 7 3/8 Dia. of screw 9 3/4 Pitch of Screw 11 1/4 No. of Blades 4 State whether moveable no Total surface 32 sq ft

No. of Feed pumps 1 Diameter of ditto 2 1/4" Stroke 14 1/4" Can one be overhauled while the other is at work yes

No. of Bilge pumps 1 Diameter of ditto 2 3/4" Stroke 14 1/4" Can one be overhauled while the other is at work yes

No. of Donkey Engines One Sizes of Pumps 6" x 4 1/4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 2-2" One forward, one aft In Holds, &c. 4-2" Forecastle Mainhold, Forward slushwell, after slushwell. 2 1/2" suction from all bilges.

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 2 1/2" suction

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 no

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

That pipes are carried through the bunkers Hold Suctions 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 6.1.15 of Stern Tube 6.1.15 Screw shaft and Propeller 6.1.15

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

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Messrs Stewart & Lloyd

Total Heating Surface of Boilers 1400 Is Forced Draft fitted no No. and Description of Boilers One single-ended

Working Pressure 200lbs Tested by hydraulic pressure to 400lbs Date of test 5.2.15 No. of Certificate 3058

Can each boiler be worked separately yes Area of fire grate in each boiler 46.8 No. and Description of Safety Valves to

each boiler 2 Spring Area of each valve 4.9 Pressure to which they are adjusted 203lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 165.5 Length 10-6 Material of shell plates S

Thickness 1 1/4 Range of tensile strength 28 tons Are the shell plates welded or flanged yes Descrip. of riveting: cir. seams D.R.

Long. seams T.R.D.B. Diameter of rivet holes in long. seams 1 1/4 Pitch of rivets 8 1/2 Lap of plates or width of butt straps 17 1/2

Percentage of strength of longitudinal joint 85.4 Working pressure of shell by rules 204 Size of manhole in shell 16" x 12"

No. of compensating ring 7" x 1 1/4" No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 39"

Length of plain part 65.2 Thickness of plates 5 1/4 Description of longitudinal joint welded No. of strengthening rings one

Working pressure of furnace by the rules 207 Combustion chamber plates: Material S Thickness: Sides 1 1/4 Back 1 1/4 Top 1 1/4 Bottom 1 1/4

Pitch of stays to ditto: Sides 10 x 8 Back 8 1/2 x 9 1/4 Top 9 x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 202

Material of stays S Diameter at smallest part 2.07 Area supported by each stay 80 Working pressure by rules 233 End plates in steam space

Material S Thickness 1 1/2 Pitch of stays 9 1/2 x 17 How are stays secured W.N.W. Working pressure by rules 210 Material of stays S

Diameter at smallest part 1.5 Area supported by each stay 331 Working pressure by rules 236 Material of Front plates at bottom S

Thickness 29 Material of Lower back plate S Thickness 29 Greatest pitch of stays 14 x 9 Working pressure of plate by rules 205

Diameter of tubes 3 1/2 Pitch of tubes 5 1/8 x 5 Material of tube plates S Thickness: Front 29 Back 7 1/8 Mean pitch of stays 10 1/4 x 10

Pitch across wide water spaces 14 1/4 Working pressures by rules 294 Girders to Chamber tops: Material S Depth and

thickness of girder at centre 10 1/4 x 1 1/4 Length as per rule 36.4 Distance apart 9 1/2 Number and pitch of stays in each 3 x 8

Working pressure by rules 210 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

separately yes Diameter 14 1/4 Length 14 1/4 Thickness of shell plates 1 1/4 Material S Description of longitudinal joint Welded Diam. of rivet

Pitch of rivets 8 1/2 Working pressure of shell by rules 210 Diameter of flue 14 1/4 Material of flue plates S Thickness 1 1/4

Stays yes Distance between rings 14 1/4 Working pressure by rules 210 End plates: Thickness 1 1/4 How stayed Welded

Working pressure of end plates 210 Area of safety valves to superheater 14 1/4 Are they fitted with easing gear yes

IS A DONKEY BOILER FITTED?

no.

If so, is a report now forwarded?

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 of coupling bolts and nuts, one set each feed & 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.

Arthur Holmes

DIRECTOR.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1914 - Nov 9. 23. 25. 27. 30 Dec 3. 7. 10. 14. 18. 22. 29. 30 1915 - Jan 2. 4. 5. 6. 7. 15. During erection on board vessel - - - 20. 21. 27. 28 Feb 2. 4. 5. 9. 16. 19 Mar 5. 18. 19. 27. 31. Total No. of visits 34

Is the approved plan of main boiler forwarded herewith

yes

Dates of Examination of principal parts—Cylinders 15. 1. 15. Slides 15. 1. 15. Covers 15. 1. 15. Pistons 16. 2. 15. Rods 9. 2. 15.

Connecting rods 5. 2. 15. Crank shaft 2. 2. 15. Thrust shaft 16. 2. 15. Tunnel shafts " Screw shaft 5. 1. 15. Propeller 5. 1. 15.

Stern tube 5. 1. 15. Steam pipes tested 18. 3. 15. Engine and boiler seatings 6. 1. 15. Engines holding down bolts 18. 3. 15.

Completion of pumping arrangements 31. 3. 15. Boilers fixed 18. 3. 15. Engines tried under steam 27. 3. 15.

Main boiler safety valves adjusted 27. 3. 15. Thickness of adjusting washers PV $\frac{13}{32}$ " SV $\frac{3}{8}$ ".

Material of Crank shaft ✓ Identification Mark on Do. 1424 Material of Thrust shaft S. Identification Mark on Do. 1430.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts J. Identification Marks on Do. 1415.

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 & 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 & safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of + LMC 3. 15. in the Register book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 3. 15.

The amount of Entry Fee ... £ 1. : : When applied for, Special ... £ 12 : 12 : 19. 4. 1915 Donkey Boiler Fee ... £ : : : When received, Travelling Expenses (if any) £ : 8 : 2 14/5/ 1915 15/5/

Committee's Minute FRI. APR. 23 1915

Assigned

+ LMC 3. 15

MACHINERY CERTIFICATE
GIVEN



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Foundation