

## REPORT ON MACHINERY.

No. 28041

Received at London Office

MON. NOV. - 2 1914

Report of 26-10-14 10 When handed in at Local Office 29-10-14 10 Port of Hull  
 Date, First Survey 6. 7. 14 Last Survey 24-10-14 19  
 (Number of Visits 33)  
 To. in Survey held at Hull  
 Reg. Book. 12 on the steel screw steamer Warlord  
 Master Built at Beverley By whom built Cook, Welton & Gemmell  
 Engines made at Hull By whom made C. D. Holmes & Co. Ltd. (No. 1093) when made 1914-10  
 Boilers made at Hull By whom made C. D. Holmes & Co. Ltd. when made 1914-10  
 Registered Horse Power Owners A. L. Black Port belonging to Gurnsey

om. Horse Power as per Section 28 75 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no  
 ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks 3  
 Dia. of Cylinders 12"-21"-34" Length of Stroke 24" Revs. per minute Dia. of Screw shaft as per rule 7.23" Material of screw shaft as fitted 7.2" 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  
 Is 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 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 6.48" Dia. of Crank shaft journals as per rule 6.81" Dia. of Crank pin 7" Size of Crank webs 34"x47" Dia. of thrust shaft under  
 collars 7" Dia. of screw 8'-9" Pitch of Screw 11'-3" No. of Blades 4 State whether moveable no Total surface 26 ft<sup>2</sup>  
 No. of Feed pumps one Diameter of ditto 2 3/8" Stroke 14 1/4" Can one be overhauled while the other is at work  
 No. of Bilge pumps one Diameter of ditto 2 3/8" Stroke 14 1/4" Can one be overhauled while the other is at work  
 No. of Donkey Engines one & 2 1/2" dia. Sizes of Pumps 6" x 4 1/4" x 6" dia. No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room two 2" dia. In Holds, &c. one 2" dia. in each compartment  
 also connected to cylinder  
 No. of Bilge Injections one sizes 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2" dia.  
 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 Forward suction How are they protected with 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 25-7-14 of Stern Tube 25-7-14 Screw shaft and Propeller 25-7-14  
 Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record S) Manufacturers of Steel Phoenix & Co. Ltd. & Co. Ltd.  
 Total Heating Surface of Boilers 1280 ft<sup>2</sup> Is Forced Draft fitted no No. and Description of Boilers one single ended  
 Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 24-9-14 No. of Certificate 3023  
 Can each boiler be worked separately Area of fire grate in each boiler 32 1/2 ft<sup>2</sup> No. and Description of Safety Valves to  
 each boiler two spring loaded Area of each valve 4.9 sq. in. Pressure to which they are adjusted 205 Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 153 3/4" Length 10-0 Material of shell plates steel  
 Thickness 1 1/8" Range of tensile strength 29-33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double  
 long. seams 1 R.D.B. Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 1/2" Lap of plates or width of butt straps 15 1/4"  
 Per centages of strength of longitudinal joint rivets 87.5 Working pressure of shell by rules 201 Size of manhole in shell 12" x 16"  
 plate 85  
 Size of compensating ring 7" x 1 1/8" No. and Description of Furnaces in each boiler three plain Material S Outside diameter 36"  
 Length of plain part top 7.6 1/2" Thickness of plates crown 3/4" Description of longitudinal joint welded No. of strengthening rings one per ft.  
 bottom 7.5" bottom 3/4"  
 Working pressure of furnace by the rules 206 Combustion chamber plates: Material S Thickness: Sides 3/4" Back 23/32" Top 1 1/6" Bottom 3/4"  
 Pitch of stays to ditto: Sides 9 1/2" x 8 3/8" Back 9 1/2" x 8" Top 9 1/2" x 8 1/2" 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 8.1 sq. in. Working pressure by rules 230 End plates in steam space  
 Material S Thickness 1 1/6" Pitch of stays 9 1/2" x 13 1/2" How are stays secured 2.7 x 1 1/2" Working pressure by rules 200 Material of stays S  
 Diameter at smallest part 6.33 Area supported by each stay 26.0 sq. in. Working pressure by rules 253 Material of Front plates at bottom S  
 Thickness 1 1/6" Material of Lower back plate S Thickness 1 1/6" Greatest pitch of stays 14 1/2" x 8 3/8" Working pressure of plate by rules 212  
 Diameter of tubes 3 1/2" Pitch of tubes 5" x 4 7/8" Material of tube plates S Thickness: Front 1 1/6" Back 7/8" Mean pitch of stays 11 1/8"  
 Pitch across wide water spaces 14 1/2" Working pressures by rules 206 Girders to Chamber tops: Material S Depth and  
 thickness of girder at centre 8 1/2" x 1 3/4" Length as per rule 32 3/4" Distance apart 8 1/2" Number and pitch of stays in each two 9 1/2"  
 Working pressure by rules 208 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  
 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



IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

✓

SPARE GEAR.

State the articles supplied:-

Two top end bolts & nuts, Two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed, bilge & air pump valves, one safety valve spring, one main donkey feed check valve, one donkey pump valve, & a quantity of bolts & nuts of various sizes.

The foregoing is a correct description,

p. pro CHARLES D. HOLMES & CO. LTD.

A. Arthur Holmes

DIRECTOR

Manufacturer.

Dates of Survey while building

During progress of work in shops - 1914: July 6, 8, 14, 25, 31 Aug 14, 18, 20, 21, 25, 26, 28, 31 Sep 1, 3, 4, 8, 14, 15, 18, 22, 23, 24  
During erection on board vessel - 30 Oct 2, 6, 8, 10, 13, 21, 22, 24.  
Total No. of visits 33.

Is the duplicate drawing forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts - Cylinders 28-8-14 Slides 18-9-14 Covers 15-9-14 Pistons 18-9-14 Rods 18-9-14

Connecting rods 18-9-14 Crank shaft 8-9-14 Thrust shaft 18-9-14 Tunnel shafts ✓ Screw shaft 6-7-14 Propeller 6-7-14

Stern tube 6-7-14 Steam pipes tested 8-10-14 Engine and boiler seatings 25-7-14 Engines holding down bolts 8-10-14

Completion of pumping arrangements 10-10-14 Boilers fixed 8-10-14 Engines tried under steam 24-10-14

Main boiler safety valves adjusted 10-10-14 Thickness of adjusting washers F 5/16 A 7/16

Material of Crank shaft steel Identification Mark on Do. 1271 FLS Material of Thrust shaft steel Identification Mark on Do. 1278 FLS

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 1246 ✓

Material of Steam Pipes solid drawn copper ✓ Test pressure 400 lbs.

Is an installation fitted for burning oil fuel no ✓ 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 Yes ✓ If so, state name of vessel S.S. Morvina Hull 28040.

General Remarks

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

The machinery of this vessel has been constructed under special survey in accordance with the approved plans & the rules of this society, the materials & workmanship are good, the boiler main steam pipes have been tested as above & found sound & good. The machinery has been properly fitted & secured on board the vessel & on completion was tested under steam & found satisfactory. The safety valves have been adjusted under steam & tried for accumulation which did not exceed 202 lbs.

In my opinion the vessel is eligible for the record & L.M.C. 10.14

It is submitted that this vessel is eligible for THE RECORD & L.M.C. 10.14.

The amount of Entry Fee ... £ 1 : 0 :  
Special ... £ 11 : 5 :  
Donkey Boiler Fee ... £ : : :  
Travelling Expenses (if any) £ : 1-0 :  
When applied for, 29.10.14  
When received, 31.10.14

Committee's Minute TUE. NOV.-3. 1914

Assigned

+ L.M.C. 10.14

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

VE

These particulars

Signal Letters (if

Official Number.

137,01

No., Date, and Port of

Whether British or Foreign Built.

British.

Number of Decks

Number of Masts

Rigged ...

Stern ...

Build ...

Galleries ...

Head ...

Framework and de

vessel ...

Number of Bulkhead

Number of water ba

and their capacity

Total to quarter the depth fro

to bottom of keel

No. of sets of Engines.

Description of

Triple exp

direct act

inverted cy

No. of Shafts.

Particulars of

Description

Number

Iron or Steel

Loaded Pressure

GROSS

Under Tonnage Deck

Space or spaces betw

Turret or Trunk ...

Forecastle ...

Bridge space ...

Peep or Break ...

Side Houses ...

Deck Houses ...

Chart House ...

Spaces for machinery

Section 78 (2) of th

1894 ...

Excess of Hatchways

Gross Tonna

Deductions, as per C

Registered T

NOTE 1.—The tonnage of

Deck for prop

NOTE 2.—The underment

Open Foreca

Name of Ma

No. of Owners

Name, Residence, an

alfred William

John Edgar Harv

John Cash Store

albert John Wre

all of Grea

Manager:—

Dated 230

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