

REPORT ON MACHINERY.

No. 28114

Received at London Office FRI. DEC. -4. 1914

Date of writing Report 25-11-14 to When handed in at Local Office 26-11-14 14 Port of Hull

No. in Survey held at Hull

Date, First Survey 15-7-14 Last Survey 25-11-14 1914

Reg. Book.

(Number of Voids 33)

Gross 226

Net 109

Master

Built at Beverley

By whom built Cook, Wilton & Gennell

When built 1914-11

Engines made at Hull

By whom made C. D. Holmes & Co. Ltd (No 1024)

when made 1914-11

Boilers made at Hull

By whom made C. D. Holmes & Co. Ltd

when made 1914-11

Registered Horse Power

Owners A. L. Black

Port belonging to Gurnaby

Nom. 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 7.25 as fitted 7.2 screw shafts Material of 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 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 as fitted 6.48 Dia. of Crank shaft journals as per rule 6.81 as fitted 7" Dia. of Crank pin 7" Size of Crank webs 4 1/2 x 3 1/4 Dia. of thrust shaft under

collars 7" Dia. of screw 8-9" Pitch of Screw 11-3" No. of Blades four State whether moveable no Total surface 26 ft

No. of Feed pumps one Diameter of ditto 2 3/8" Stroke 14 1/2" Can one be overhauled while the other is at work

No. of Bilge pumps one Diameter of ditto 2 3/8" Stroke 14 1/2" Can one be overhauled while the other is at work

No. of Donkey Engines one 2 1/2 hp Sizes of Pumps 6" x 4 1/4" x 6" duplex No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two 12" dia In Holds, &c. One 2" in each compartment also

connected to ejector

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" 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 Forward suction 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 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

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Phoenix, Alb. Hinder, T. H. Hinde

Total Heating Surface of Boilers 1280 ft 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 1-10-14 No. of Certificate 3024

Can each boiler be worked separately Area of fire grate in each boiler 32 1/2 ft No. and Description of Safety Valves to

each boiler two spring loaded Area of each valve 4 9" 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 7" Mean dia. of boilers 15 3/4" Length 10'-0" Material of shell plates S

Thickness 1 1/8" Range of tensile strength 29-33 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double

long. seams 2 R. B. 1 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 85 Working pressure of shell by rules 201 Size of manhole in shell 12" x 16"

Size of compensating ring 7" x 1 1/2" No. and Description of Furnaces in each boiler three plain Material S Outside diameter 36"

Length of plain part top 7 1/2" bottom 7 1/2" Thickness of plates crown 7 3/4" Description of longitudinal joint welded No. of strengthening rings one per

Working pressure of furnace by the rules 206 Combustion chamber plates: Material S Thickness: Sides 3/4" Back 2 3/32" Top 1/16" Bottom 3/4"

Pitch of stays to ditto: Sides 9 1/2" x 5 3/8" Back 9 1/2" x 5" Top 9 1/2" x 5 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 81" Working pressure by rules 230 End plates in steam space

Material S Thickness 1 1/8" Pitch of stays 19 1/4" x 13 1/2" How are stays secured R. H. & W. Working pressure by rules 200 Material of stays S

Diameter at smallest part 6 3/32" Area supported by each stay 260" Working pressure by rules 253 Material of Front plates at bottom S

Thickness 1 1/8" Material of Lower back plate S Thickness 1 5/16" Greatest pitch of stays 4 1/2" x 8 3/4" 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 1/8" 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 at 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

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

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

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 pipe fair pump valves, one main & one donkey check valve, one safety valve spring, one donkey pump valve, & a quantity of bolts & nuts & nuts of various sizes*

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: July 15, 23, 25, 31. Aug 14, 20, 25, 26, 31. Sep 1, 3, 4, 8, 14, 15, 18, 22, 23, 26, 28*
During erection on board vessel -- *Oct 1, 3, 6, 8, 13, 19, 20, 21, 22, 27, 29 Nov 2, 25*
Total No. of visits *33*

Is the approved plan of main boiler forwarded herewith? *Yes*

" " " donkey " " *with sp. East, Kennos*

Dates of Examination of principal parts—Cylinders *22-9-14* Slides *3-10-14* Covers *3-10-14* Pistons *28-9-14* Rods *3-10-14*
Connecting rods *22-9-14* Crank shaft *22-9-14* Thrust shaft *28-9-14* Tunnel shafts *✓* Screw shaft *15-7-14* Propeller *15-7-14*
Stern tube *25-7-14* Steam pipes tested *19-10-14* Engine and boiler seatings *25-7-14* Engines holding down bolts *21-10-14*
Completion of pumping arrangements *22-10-14* Boilers fixed *21-10-14* Engines tried under steam *22-10-14*
Main boiler safety valves adjusted *22-10-14* Thickness of adjusting washers *7/16 & 3/8*

Material of Crank shaft *Steel* Identification Mark on Do. *1280 FLS* Material of Thrust shaft *Steel* Identification Mark on Do. *1284 FLS*

Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Iron* Identification Marks on Do. *1249 JG.M*

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 *Thurina, Warlord*

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 plan & the rules of this society, the materials & workmanship are good. The boiler & steam pipes have been tested as above & found sound & tight. The machinery has been properly fitted & secured on board the vessel & on completion tried under steam & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 210 lbs. In my opinion the vessel is eligible for the record & L.M.C. 11.14.*

It is submitted that
this vessel is eligible for
THE RECORD + L.M.C. 11.14

The amount of Entry Fee ... £ ... 6 ...
Special ... £ ... 5 ...
Donkey Boiler Fee ... £ ...
Travelling Expenses (if any) £ ... 1 ...

When applied for,

3/13/1914

When received,

31.12.1914

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

Committee's Minute TUE DEC - 8. 1914

Assigned

+ L.M.C. 11.14

MACHINERY CERTIFICATE
NOTED



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Foundation