

REPORT ON MACHINERY.

No. 10713
SAT. JUN. 12 1920

Received at London Office

of writing Report 5.6.20 to When handed in at Local Office 9.6.20 10 Port of **MIDDLESBRO**

in Survey held at **Stockton-on-Tees** Date, First Survey 10th Jan. 1919. Last Survey 4th June 1920

Book. on the **Steel Screw Steamer H.H. Asquith** (S.S. No. 522) (Number of Visits 75) Gross Tons Net Tons

ter Built at **Stockton** By whom built **Messrs Refner S. B. & Co. Ltd** When built 1920

ines made at **Stockton** By whom made **Messrs Blair & Co. Ltd (No. 1873)** when made 1920

lers made at **Stockton** By whom made **Messrs Blair & Co. Ltd (Nos 1873 & E 1339)** when made 1920

istered Horse Power Owners Port belonging to

2. Horse Power as per Section 28 **475** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **yes**

INES, &c.—Description of Engines **Tri-compound** No. of Cylinders **3** No. of Cranks **3**

of Cylinders **26-43-71** Length of Stroke **48** Revs. per minute **64** Dia. of Screw shaft as per rule **14.7** Material of screw shaft **W. Iron**
as fitted **15 3/4** screw shafts

he 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

he propeller boss **yes** If the liner is in more than one length are the joints burned **in one** If the liner does not fit tightly at the part

een the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive **tight-fit** If two

rs are fitted, is the shaft lapped or protected between the liners **✓** Length of stern bush **5-4"**

of Tunnel shaft as per rule **13.05** Dia. of Crank shaft journals as per rule **13.7** Dia. of Crank pin **14 3/4** Size of Crank web **28 1/2 x 9 1/2** Dia. of thrust shaft under

ars **14 3/4** Dia. of screw **18-0"** Pitch of Screw **17-6"** No. of Blades **4** State whether moveable **no** Total surface **98 sq ft**

of Feed pumps **2** Diameter of ditto **3 1/2"** Stroke **34"** Can one be overhauled while the other is at work **yes**

of Bilge pumps **2** Diameter of ditto **5"** Stroke **34"** Can one be overhauled while the other is at work **yes**

of Donkey Engines **4** Sizes of Pumps **11 x 18 1/2, 9 x 7 x 14, 6 x 4 x 10** No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room **3 @ 3 1/2"** **2 @ 3 1/2"** In Holds, &c. **2 @ 3 1/2"** in each hold. **Tunnel**

of Bilge Injections **1** sizes **6 3/4"** Connected to **Centrifugal** circulating pump **yes** Is a separate Donkey Suction fitted in Engine room & size **yes - 4"**

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**

all connections with the sea direct on the skin of the ship **yes** Are they Valves or Cocks **both**

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**

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**

hat pipes are carried through the bunkers **Suctions to forward holds** How are they protected **wood ceiling**

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **yes**

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges **yes**

ates of examination of completion of fitting of Sea Connections **22.3.20** of Stern Tube **22.3.20** Screw shaft and Propeller **20.4.20**

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

ILERS, &c.—(Letter for record (S)) Manufacturers of Steel **Messrs John Spence & Sons Ltd** **3 S.B. & 1 Aux. S.B.**

total Heating Surface of Boilers **8647** Is Forced Draft fitted **no** No. and Description of Boilers **3 Main & 1 Aux single ended.**

orking Pressure **180** Tested by hydraulic pressure to **360** Date of test **26.3.20** No. of Certificate **6105**

in each boiler be worked separately **yes** Area of fire grate in each boiler **60.6 sq ft** No. and Description of Safety Valves to

ch boiler **2 direct spring** Area of each valve **7.07** Pressure to which they are adjusted **185** Are they fitted with easing gear **yes**

allest distance between boilers on **external** and bunkers on **woodwork** **2'-0"** Mean dia. of boilers **15'-6"** Length **11'-6"** Material of shell plates **steel**

ickness **1 1/4"** Range of tensile strength **28-32** Are the shell plates welded or flanged **no** Descrip. of riveting: cir. seams **2 Riv. lap**

ng. seams **2 B-3 Riv** Diameter of rivet holes in long. seams **1 1/2"** Pitch of rivets **9 1/2"** width of butt straps **19 5/8" x 1 5/8"**

er centages of strength of longitudinal joint rivets **87.0** Working pressure of shell by rules **184** Size of manhole in shell **16" x 12"**

ize of compensating ring **7 5/8" x 1 1/4"** No. and Description of Furnaces in each boiler **3 Brighton** Material **steel** Outside diameter **46 3/8"**

ength of plain part top **✓** Thickness of plates crown **9"** bottom **7 1/2"** Description of longitudinal joint **Weld** No. of strengthening rings **✓**

orking pressure of furnace by the rules **190** Combustion chamber plates: Material **steel** Thickness: Sides **1/2"** Back **1/2"** Top **1/2"** Bottom **3/4"**

itch of stays to ditto: Sides **8 5/8" x 10 1/4"** Back **9 1/4" x 9 3/8"** Top **9 3/8" x 9"** If stays are fitted with nuts or riveted heads **nuts** Working pressure by rules **186**

aterial of stays **steel** Diameter at smallest part **1.99** Area supported by each stay **86.7** Working pressure by rules **206** End plates in steam space

aterial **steel** Thickness **1 3/8"** Pitch of stays **21" x 18"** How are stays secured **nuts & washers** Working pressure by rules **187** Material of stays **steel**

iameter at smallest part **7.87** Area supported by each stay **420** Working pressure by rules **195** Material of Front plates at bottom **steel**

ickness **1 1/2"** Material of Lower back plate **steel** Thickness **1"** Greatest pitch of stays **14 1/2" x 9 3/8"** Working pressure of plate by rules **258**

iameter of tubes **3 1/4"** Pitch of tubes **4 5/8" x 4 1/2"** Material of tube plates **steel** Thickness: Front **1 1/8"** Back **1 1/8"** Mean pitch of stays **9 5/8"**

itch across wide water spaces **14 1/4"** Working pressures by rules **187** Girders to Chamber tops: Material **steel** Depth and

ickness of girder at centre **8 1/4" x 1 1/2"** Length as per rule **32"** Distance apart **9 3/4"** Number and pitch of stays in each **2 @ 9"**

orking pressure by rules **190** Superheater or Steam chest; how connected to boiler **none** Can the superheater be shut off and the boiler worked

eparately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

oles 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

orking pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

Lloyd's Register Foundation
14148-0143

IS A ^{Auxiliary} ~~BOILER~~ BOILER FITTED? *yes*

If so, is a report now forwarded? *Report attached*

SPARE GEAR. State the articles supplied: - *Two each of con. rod top-end, bottom-end and main bearing bolts and nuts: one set of coupling bolts and nuts: one set each of feed & bilge pump valves, 6, check valves, assorted bolts and nuts: iron of various sizes: one cast iron propeller; one tail end shaft and minor gear.*

The foregoing is a correct description,
FOR BLAIR & CO., LIMITED,

Geo. H. Atkinson
MANAGING DIRECTOR

Manufacturer.

1919
Dates of Survey while building { During progress of work in shops - - -
During erection on board vessel - - -
Total No. of visits } *15*

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

Dates of Examination of principal parts - Cylinders *11.3.20* Slides *25.3.20* Covers *11.3.20* Pistons *9.3.20* Rods *9.3.20*
Connecting rods *23.3.20* Crank shaft *23.1.20* Thrust shaft *6.11.19* Tunnel shafts *26.11.19* Screw shafts *15.4.20* Propeller *15.4.20*
Stern tube *15.3.20* Steam pipes tested *5.5.20* Engine and boiler seatings *22.3.20* Engines holding down bolts *11.5.20*
Completion of pumping arrangements *27.5.20* Boilers fixed *27.5.20* Engines tried under steam *27.5.20*
Main boiler safety valves adjusted *27.5.20* Thickness of adjusting washers *P.B. 5-15/32 C.B. 5-7/8 S.B. 5-3/8 F.B. AV-3/8*

Material of Crank shaft *Hy Steel* Identification Mark on Do. *7229* Material of Thrust shaft *Hy Steel* Identification Mark on Do. *4575*
Material of Tunnel shafts *Hy Steel* Identification Marks on Do. *4575-N* Material of Screw shafts *Iron* Identification Marks on Do. *7229*
Material of Steam Pipes *Solid drawn Copper 4" x 1/4"* 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 *no* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been built under special survey. The materials and workmanship are sound and good. The boilers were tested by hydraulic pressure and the engines and boilers examined under steam and all found satisfactory.*

The machinery is now in a good and safe working condition and renders the vessel eligible in my opinion to have the record of L.M.C. 6.20 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. T.L.M.C. 6.20.

W.M. Morrison
J.M.C.

Note: - This vessel is fitted with Electric Light and "Wireless"

The amount of Entry Fee ... £ *3-0-0* When applied for, *11.6.1920*
Special ... £ *43-15-0*
Donkey Boiler Fee ... £ *5*
Travelling Expenses (if any) £ ...
When received, *15/6/20*

W.M. Morrison

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

Committee's Minute *ERI JUN 18 1920*

Assigned *+ L.M.C. 6:20*



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