

REPORT ON MACHINERY.

No. 30,182

Received at London Office

TUE. - 9 OCT. 1917

Date of writing Report 3-10-17

When handed in at Local Office 6-10-17

Port of Hull

No. in Survey held at
Reg. Book.

Hull

Date, First Survey 21-9-16

Last Survey 1-10-17 19

(Number of Visits 58)

328 on the steel screw steamer "Kestrel"

Master

Built at Beverley

By whom built Cook Wilson & Gemmell

Tons Gross 258

Net 113

When built 1917-10

Engines made at

Hull

By whom made

C. & J. Holmes & Co. Ltd

when made 1917-10

Boilers made at

Hull

By whom made

C. & J. Holmes & Co. Ltd

when made 1917-10

Registered Horse Power

Owners G. F. Light

Port belonging to Gambia

Nom. Horse Power as per Section 28 80

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansion

No. of Cylinders three

No. of Cranks 3

Dia. of Cylinders 12 1/2" - 22" - 35" Length of Stroke 24" Revs. per minute

Dia. of Screw shaft as per rule 7 3/4" Material of screw shaft as fitted 7 3/4" steel

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

liners are fitted, is the shaft lapped or protected between the liners yes

Length of stern bush 35 1/2"

Dia. of Tunnel shaft as per rule 6 6" Dia. of Crank shaft journals as per rule 6 9/32"

Dia. of Crank pin 7" Size of Crank webs 4 1/2" x 13 1/4" Dia. of thrust shaft under

collars 7" Dia. of screw 8-9" Pitch of Screw 10-9" No. of Blades 4 State whether moveable no Total surface 29 sq ft

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 yes

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 yes

No. of Donkey Engines two + 2 1/2" Sizes of Pumps 6" 4 1/4" x 6" 5 1/4" 3 1/2" x 5" duplex 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

No. of Bilge Injections one sizes 3 1/2" 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 strong 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

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

BOILERS, &c.—(Letter for record 3) Manufacturers of Steel J. Spencer Stans

Total Heating Surface of Boilers 1402 sq ft Is Forced Draft fitted no No. and Description of Boilers one single ended

Working Pressure 195 lbs. Tested by hydraulic pressure to 390 lbs. Date of test 23-3-17 No. of Certificate 3199

Can each boiler be worked separately yes Area of fire grate in each boiler 43.2 sq ft No. and Description of Safety Valves to

each boiler two spring loaded Area of each valve 4 9/16" Pressure to which they are adjusted 200 lbs. Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers on woodwork 8" Blagden Mean dia. of boilers 162" Length 10'-6" Material of shell plates steel

Thickness 1 3/16" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double

long. seams J.R.D.B. Diameter of rivet holes in long. seams 1 7/32" Pitch of rivets 8 7/16" Lap of plates or width of butt straps 16 5/8"

Per centages of strength of longitudinal joint rivets 86.8 plate 85.5 Working pressure of shell by rules 197 Size of manhole in shell 16" x 12"

Size of compensating ring 7" x 1 3/16" No. and Description of Furnaces in each boiler three plain Material steel Outside diameter 40"

Length of plain part top 69 3/4" bottom 63" Thickness of plates crown 1 29/32" Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 205 lbs. Combustion chamber plates: Material steel Thickness: Sides 1 1/16" Back 23/32" Top 1 1/16" Bottom 1 1/16"

Pitch of stays to ditto: Sides 9 3/4" x 8" Back 9 3/8" x 8 3/4" Top 11" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 202

Material of stays steel Area at smallest part 2.07 sq ft Area supported by each stay 86.5 sq ft Working pressure by rules 215 End plates in steam space:

Material steel Thickness 1 7/32" Pitch of stays 18" x 18" How are stays secured 8" x 11" Working pressure by rules 195 Material of stays steel

Area at smallest part 6.33 sq ft Area supported by each stay 324 sq ft Working pressure by rules 203 Material of Front plates at bottom steel

Thickness 7/8" Material of Lower back plate steel Thickness 3 1/32" Greatest pitch of stays 15" x 9 1/2" Working pressure of plate by rules 207

Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" Material of tube plates steel Thickness: Front 7/8" + 3/4" double Back 7/8" Mean pitch of stays 9 1/2"

Pitch across wide water spaces 15" Working pressures by rules 250 lbs. Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 10 3/4" x 1 3/4" Length as per rule 35.8" Distance apart 11" Number and pitch of stays in each three 8"

Working pressure by rules 197 Steam dome: description of joint to shell yes % of strength of joint yes

Diameter yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet holes yes

Pitch of rivets yes Working pressure of shell by rules yes Crown plates yes Thickness yes How stayed yes

SUPERHEATER. Type / Date of Approval of Plan /

Tested by Hydraulic Pressure to /

Date of Test /

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler /

Diameter of Safety Valve /

Pressure to which each is adjusted /

Is Easing Gear fitted /

W 456-0157

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 air, feed & bilge pump valves, one main & one donkey check valve, six gun ring studs & nuts, one safety valve spring, 3 boiler tubes & a quantity of bolts & nuts & nuts of various sizes.*

The foregoing is a correct description,

For CHARLES D. HOLMES & CO. LTD.

Charles D. Holmes

Manufacturer.

Dates of Survey while building { During progress of work in shops - - *1916: Sep. 21, 23, Oct. 20, 25, 31, Nov. 13, 15, Dec. 4, 5, 14, 21, 1917: Jan. 9, 12, 16, 18, 23, 25, 30, Feb. 1, 7, 9, 13, 16, 21, 23, Mar. 5, 8, 14, 19, 23, Apr. 23, May 1, 4, 8, 9, 24, 29, 31, June 4, 9, 14, 20, Jul. 2, 6, 15, Aug. 20, 24, 29, 30, Sep. 5, 18, 19, 22, 25, 29, Oct. 6, 11, 13.*
During erection on board vessel - - -
Total No. of visits *58*

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

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *4-6-17* Slides *2-7-17* Covers *2-7-17* Pistons *2-7-17* Rods *2-7-17*

Connecting rods *2-7-17* Crank shaft *20-6-17* Thrust shaft *15-8-17* Tunnel shafts *✓* Screw shaft *23-2-17* Propeller *23-2-17*

Stern tube *23-2-17* Steam pipes tested *18-9-17* Engine and boiler seatings *24-2-17* Engines holding down bolts *17-9-17*

Completion of pumping arrangements *1-10-17* Boilers fixed *17-9-17* Engines tried under steam *1-10-17*

Completion of fitting sea connections *24-2-17* Stern tube *24-2-17* Screw shaft and propeller *24-2-17*

Main boiler safety valves adjusted *22-9-17* Thickness of adjusting washers *1/2 1/4*

Material of Crank shaft *Iron* Identification Mark on Do. *1785 G.A* Material of Thrust shaft *Iron* Identification Mark on Do. *2006 F.L.S*

Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Iron* Identification Marks on Do. *1734 F.L.S*

Material of Steam Pipes *Solid drawn copper* Test pressure *410*

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 *Remindo de*

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 & steam pipes have been tested as above by hydraulic pressure & 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 & tested for accumulation which did not exceed 2 1/2 lbs.

In my opinion the vessel is eligible for the record + d. to 6.10.17

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 10.17.

The amount of Entry Fee ... £ *1* : *0* :
Special ... £ *12* : *0* :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : *3/4* :

When applied for,

8/10/1917

When received,

31.10.1917

Frank A. Sturgeon

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI OCT 12 1917

Assigned

L.M.C. 10.17



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Foundation