

Rpt. 4. *Lat*

# REPORT ON MACHINERY.

No. 45240

Received at London Office 30 JUN 1926

Date of writing Report 19 *28.6.26* When handed in at Local Office *28.6.26* Port of *Glasgow*

No. in Survey held at *Glasgow* Date, First Survey *26.2.26* Last Survey *26.6.1926*  
 Reg. Book. on the *new steel screw tug "GEORGE LYESEY"* (Number of Visits *26*) Tons } Gross *108*  
 } Net

Master Built at *Glasgow* By whom built *Harland & Wolff Ltd (No 734)* When built *1926*

Engines made at *Glasgow* By whom made *D. & W. Henderson & Co. Ltd (No 734)* when made *1926*

Boilers made at *Glasgow* By whom made *D. & W. Henderson & Co. Ltd (No 734)* when made *1926*

Registered Horse Power Owners *South Metropolitan Gas Company* Port belonging to *London*

Nom. Horse Power as per Section 28 *84* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *no*

ENGINES, &c.—Description of Engines *Compound* No. of Cylinders *2* No. of Cranks *2*

Dia. of Cylinders *18"-38"* Length of Stroke *27"* Revs. per minute *120* Dia. of Screw shaft *8.49"* Material of screw shaft *steel*  
 as fitted *8.2"*

Is the screw shaft fitted with a continuous liner the whole length of the stern tube *no* Is the after end of the liner made water tight  
*United States packing fitted* If the liner is in more than one length are the joints burned — 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 *2-11"*

Dia. of Tunnel shaft *7.53"* Dia. of Crank shaft journals *7.91"* Dia. of Crank pin *8.2"* Size of Crank webs *15.7"* Dia. of thrust shaft under  
 as fitted *7.2"* as fitted *8.2"*

codars *8.2"* Dia. of screw *8-6"* Pitch of Screw *11-3"* No. of Blades *4* State whether moveable *no* Total surface *26 sq ft*

No. of Feed pumps *2* Diameter of ditto *3"* Stroke *13.5"* Can one be overhauled while the other is at work *yes*

No. of Bilge pumps *2* Diameter of ditto *3"* Stroke *13.5"* Can one be overhauled while the other is at work *yes*

No. of Donkey Engines *1* Sizes of Pumps *4.86 x 12 (Wells)* No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room *2 @ 2"* In Holds, &c. *1 @ 2" in shaft recess, 1 @ 2" in fore cabin.*

No. of Bilge Injections *1* sizes *4"* Connected to condenser, or to circulating pump *6 P.* Is a separate Donkey Suction fitted in Engine room & size *yes 2"*

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 —

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 *none* How are they protected —

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 *none* Is it fitted with a watertight door *worked from Hatch in crew's space.*

BOILERS, &c.—(Letter for record (S) ) Manufacturers of Steel *D. Bohill & Sons Ltd.*

Total Heating Surface of Boilers *1551 sq ft* Is Forced Draft fitted *no* No. and Description of Boilers *one single ended 15B*

Working Pressure *130* Tested by hydraulic pressure to *245* Date of test *20.4.26* No. of Certificate *14104*

Can each boiler be worked separately *yes* Area of fire grate in each boiler *49 sq ft* No. and Description of Safety Valves to  
 each boiler *2-3" High lift* Area of each valve *7.0680"* Pressure to which they are adjusted *135* Are they fitted with easing gear *yes*

Smallest distance between boilers or uptakes and bunkers on woodwork *2-9"* Mean dia. of boilers *13-3"* Length *10-0"* Material of shell plates *steel*

Thickness *5.3/64* Range of tensile strength *28-32 tons* Are the shell plates welded or flanged *no* Descrip. of riveting: cir. seams *WR*  
 long. seams *WBS. TR* Diameter of rivet holes in long. seams *1"* Pitch of rivets *6.2/16"* Top of plates *width of butt straps 15.7/8"*

Per centages of strength of longitudinal joint rivets *94.3* Working pressure of shell by rules *131* Size of manhole in shell *16 x 12*  
 plate *83.8*

Size of compensating ring *2-9 x 2-6 x 7/8"* No. and Description of Furnaces in each boiler *two Deighton 20Cf.* Material *steel* Outside diameter *4-7.5/16"*

Length of plain part top *11"* Thickness of plates crown *11/32"* Description of longitudinal joint *welded* No. of strengthening rings —  
 bottom *3/32"*

Working pressure of furnace by the rules *147* Combustion chamber plates: Material *steel* Thickness: Sides *5/8"* Back *5/8"* Top *5/8"* Bottom *5/8"*

Pitch of stays to ditto: Sides *9.2/4 x 9.2/4* Back *9.2/4 x 9.2/4* Top *10 x 9.2/4* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *140*

Material of stays *steel* Area at smallest part *1.450"* Area supported by each stay *950"* Working pressure by rules *132* End plates in steam space:  
 Material *steel* Thickness *3/32"* Pitch of stays *19 x 17* How are stays secured *U.N.* Working pressure by rules *132* Material of stays *steel*

Area at smallest part *3.90"* Area supported by each stay *3230"* Working pressure by rules *132* Material of Front plates at bottom *steel*  
 Thickness *27/32"* Material of Lower back plate *steel* Thickness *23/32"* Greatest pitch of stays *15.2/4 x 9.2/4* Working pressure of plate by rules *131*

Diameter of tubes *3"* Pitch of tubes *4.2/4 x 4.8/8"* Material of tube plates *steel* Thickness: Front *27/32"* Back *23/32"* Mean pitch of stays *11.17/32"*

Pitch across wide water spaces *14"* Working pressures by rules *136* Girders to Chamber tops: Material *steel* Depth and  
 thickness of girder at centre *2 @ 6.2/4 x 4/16"* Length as per rule *28.155"* Distance apart *10"* Number and pitch of stays in each *2 @ 9.2/4"*

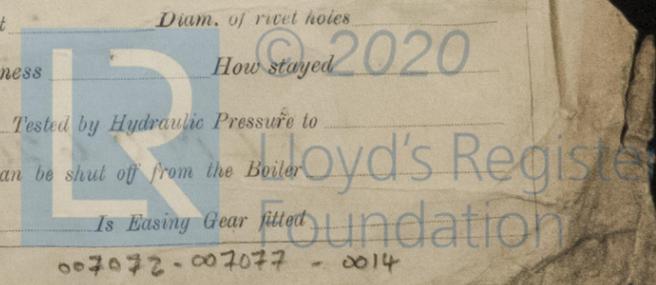
Working pressure by rules *141* Steam dome: description of joint to shell *none* % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type *none* 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 —



IS A DONKEY BOILER FITTED?  no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: *as per rules, and in addition - one screw shaft and one propeller.*

The foregoing is a correct description,

For DAVID & WM HENDERSON & CO., LTD.

*J. Steddy*

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1926 Feb. 26 Mar. 4-5-9-19 Apr. 6-9-16-20-23-30 May 7-10-11-12-18-19-14-21-25-26-27-28-31 June 2-26. During erection on board vessel - Total No. of visits 26

Is the approved plan of main boiler forwarded herewith  yes

Is the approved plan of donkey boiler forwarded herewith  yes

Dates of Examination of principal parts - Cylinders 23-30-4-26 Slides 12-5-26 Covers 14-5-26 Pistons 7-5-26 Rods 10-5-26 Connecting rods 10-5-26 Crank shaft 12-5-26 Thrust shaft 12-5-26 Tunnel shafts 12-5-26 Screw shaft 14-5-26 Propeller 14-5-26 Stern tube 7-5-26 Steam pipes tested 18-24-5-26 Engine and boiler seatings 10-5-26 Engines holding down bolts 28-5-26 Completion of pumping arrangements 2-6-26 Boilers fixed 28-5-26 Engines tried under steam 26-6-26 Completion of fitting sea connections 11-5-26 Stern tube 11-5-26 Screw shaft and propeller 11-5-26 Main boiler safety valves adjusted 2-6-26 Thickness of adjusting washers P 7/16" S 3/8"

Material of Crank shaft *J. Steel* Identification Mark on Do. *LLOYD'S NO 1428 H.M.C. 12-5-26* Material of Thrust shaft *J. Steel* Identification Mark on Do. *LLOYD'S NO 929 H.M.C. 12-5-26*

Material of Tunnel shaft *J. Steel* Identification Marks on Do. *LLOYD'S NO 926 H.M.C. 12-5-26* Material of Screw shafts *J. Steel* Identification Marks on Do. *LLOYD'S NO 927 H.M.C. 14-5-26*

Material of Steam Pipes *Solid drawn copper* Test pressure *260 lbs.* *main*

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 *Span*

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

*The workmanship and materials are good. The machinery has been constructed under special survey in accordance with the Rules, satisfactorily fitted in the vessel tried under steam and found good. It is eligible in my opinion for classification and the record + LMC 6, 26*

It is submitted that this vessel is eligible for THE RECORD + LMC 6. 26. 06.

*S. J. Davis*  
2/7/26

The amount of Entry Fee ... £ 2 : - : -  
Special ... £ 21 : - : -  
Donkey Boiler Fee ... £ - : - : -  
Travelling Expenses (if any) £ - : - : -

When applied for.

29 JUN 1926

When received.

9-9-26

*S. J. Davis*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 29 JUN 1926

Assigned + LMC 6, 26

CERTIFICATE WRITER



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