

# REPORT ON MACHINERY.

No. 24384

Received at London Office

15 SEP 1926

Date of writing Report *Sept 13 1926* When handed in at Local Office *1926* Port of *HULL*

No. in Survey held at *Hull* Date, First Survey *Jan 18<sup>th</sup> 1926* Last Survey *Sept 13<sup>th</sup> 1926*  
Reg. Book. on the *Shel S.S. "SHERINGHAM"* (Number of Visits *22*)

Master *By whom built* *Hull* *By whom built* *Barlow S.B. & Co. Ltd.* Tons *1088*  
Gross *1088*  
Net *429*  
When built *1926*

Engines made at *Hull* By whom made *Barlow S.B. & Co. Ltd.* when made *1926*  
Boilers made at *Hull* By whom made *Barlow S.B. & Co. Ltd.* when made *1926*

Registered Horse Power *349* Owners *London North Eastern Ry. Co.* Port belonging to *Harwich*  
Nom. Horse Power as per Section 28 *349* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*

ENGINES, &c.—Description of Engines *Triple Expansion* No. of Cylinders *3* No. of Cranks *3*  
Dia. of Cylinders *22.35.60* Length of Stroke *39* Revs. per minute *105* Dia. of Screw shaft *3.8* Material of screw shaft *Steel*  
as per rule *3.8* as fitted *1.4*

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  
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* If two  
shafts are fitted, is the shaft lapped or protected between the liners *yes* Length of stern bush *5'-0"*

Dia. of Tunnel shaft *11.3* Dia. of Crank shaft journals *11.8* Dia. of Crank pin *13* Size of Crank webs *22 x 7 7/8* Dia. of thrust shaft under  
as per rule *11.3* as fitted *11.5/8* as per rule *11.8* as fitted *12.2* as fitted *14*

Walls *12 1/2* Dia. of screw *3'-3"* Pitch of Screw *15'-3"* No. of Blades *4* State whether moveable *no* Total surface *54 sq. ft.*

No. of Feed pumps *2* Diameter of ditto *4"* Stroke *20"* Can one be overhauled while the other is at work *yes*  
No. of Bilge pumps *2* Diameter of ditto *4"* Stroke *20"* Can one be overhauled while the other is at work *yes*

No. of Donkey Engines *2* Sizes of Pumps *2 G.S. 4x4x8* No. and size of Suctions connected to both Bilge and Donkey pumps  
Engine Room *2 @ 2 1/2"* In Boiler Room *3 @ 2 1/2"* In Holds, &c. *1 @ 3"* *Hold well 1 @ 3"*  
*4 Hold 2 @ 3"* *1 Hold 2 @ 3"* *1 Hold 2 @ 3"* *A.P. 1 @ 2 1/2"* *F.P. 1 @ 2 1/2"*

No. of Bilge Injections *1* sizes *4 1/2"* Connected to condenser, or to circulating pump *CP* Is a separate Donkey Suction fitted in Engine room & size *1 @ 3 1/2"*

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 *home*  
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*

Are that pipes are carried through the bunkers *Fore hold Suctions* 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*  
Is the Screw Shaft Tunnel watertight *yes* Is it fitted with a watertight door *yes* worked from *Upper Deck*

BOILERS, &c.—(Letter for record *SR*) Manufacturers of Steel *Steel Co. of Scotland, Ironingham I. & S. Co.*

Total Heating Surface of Boilers *5880* Is Forced Draft fitted *yes* No. and Description of Boilers *Three Single ended 3 SB*  
Working Pressure *205 lb sq. in.* Tested by hydraulic pressure to *358 lb sq. in.* Date of test *Port 6.7.26 No. of Certificate 3599*  
*STAR 13.4.26 No. of Certificate 3600*

Can each boiler be worked separately *yes* Area of fire grate in each boiler *58.5 sq. ft.* No. and Description of Safety Valves to  
each boiler *2 Safety High Lift* Area of each valve *3.94* Pressure to which they are adjusted *205 lb sq. in.* Are they fitted with easing gear *yes*

Smallest distance between boilers or uptakes and bunkers or woodwork *15"* Mean dia. of boilers *3'-6"* Length *11'-6"* Material of shell plates *Steel*  
Thickness *1/4"* Range of tensile strength *28/32 tons* Are the shell plates welded or flanged *yes* Descrip. of riveting: cir. seams *DR*

Long. seams *T.R. DR* Diameter of rivet holes in long. seams *1 1/4"* Pitch of rivets *8 1/2"* Lap of plates or width of butt straps *18 3/8"*  
Percentage of strength of longitudinal joint *89* Working pressure of shell by rules *205* Size of manhole in shell *16" x 12"*

Area of compensating ring *6 3/4 x 1 1/4* No. and Description of Furnaces in each boiler *3 Brighton* Material *Steel* Outside diameter *40 1/8"*  
Length of plain part *10"* Thickness of plates *19"* Description of longitudinal joint *Welded* No. of strengthening rings *15*

Working pressure of furnace by the rules *215* Combustion chamber plates: Material *Steel* Thickness: Sides *3/4"* Back *3/4"* Top *23/32"* Bottom *15/16"*  
Pitch of stays to ditto: Sides *8 1/2 x 6 1/2"* Back *8 1/2 x 6 1/2"* Top *8 1/2 x 8 1/4"* If stays are fitted with nuts or riveted heads *Riv. heads* Working pressure by rules *222*

Material of stays *Iron* Area at smallest part *1.48 sq. in.* Area supported by each stay *58.5* Working pressure by rules *208* End plates in steam space:  
Material *Steel* Thickness *13/16"* Pitch of stays *8 x 14 1/8"* How are stays secured *DR, RW* Working pressure by rules *212* Material of stays *Steel*

Area at smallest part *6.1* Area supported by each stay *308* Working pressure by rules *218* Material of Front plates at bottom *Steel*  
Thickness *7/8"* Material of Lower back plate *Steel* Thickness *7/8"* Greatest pitch of stays *3 x 8 3/8"* Working pressure of plate by rules *260*

Diameter of tubes *2 1/2"* Pitch of tubes *3 3/4 x 3 3/4"* Material of tube plates *Steel* Thickness: Front *7/8"* Back *7/8"* Mean pitch of stays *9.5*  
Pitch across wide water spaces *3"* Working pressures by rules *232* Girders to Chamber tops: Material *Steel* Depth and  
Thickness of girder at centre *9 1/2 x 13/16 (2)* Length as per rule *364"* Distance apart *8 1/4"* Number and pitch of stays in each *3 @ 8 1/2"*

Working pressure by rules *210* 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 *yes* Date of Approval of Plan *yes* Tested by Hydraulic Pressure to *yes*

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *yes*  
Is Easing Gear fitted *yes*

Safety Valve Pressure to which each is adjusted *yes*

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— All spare part required by Rule has been supplied, together with the following items:—

One propeller shaft: one bottom end brass: 2 valve spindles: set of top end brasses: 1 eccentric strap: Piston & piston valve ring & springs for each size: A.P. rod & bucket & head valve: main & auxiliary check valves: Circulating pump rod: spare valves for all pumps: 2 safety valve springs:

The foregoing is a correct description,

FOR EARLE'S SHIPBUILDING & ENGINEERING CO. L<sup>td</sup> MITEL

*H. J. G. G.*

Manufacturer.

Dates of Survey while building: During progress of work in shops --- 1926 Mar. 18. 20. Apr. 15. 23. May 8. 28. Jun. 4. 12. 21. 29. Jul. 5. 6. 8. 13. 19. 28. Aug. 9. 10. 12. 12. During erection on board vessel --- 16. 14. 18. 20. 21. 24. 25. 26. 24. 28. 31. Sep. 8. 9. 10. Total No. of visits 22

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts: Cylinders HP 14.6.26 MP 4.6.26 Slides 21.6.26 Covers As aft Pistons 14.6.26 Rods 21/6/26 Connecting rods 21.6.26 Crank shaft 21.6.26 Thrust shaft 1.7.26 Tunnel shafts 1.7.26 Screw shaft 1.7.26 Propeller 1.7.26 Stern tube 1.7.26 Steam pipes tested 12/8/26 } Engine and boiler seatings { 18.8.26 Engines holding down bolts 27.8.26 27/8/26 Completion of pumping arrangements 28.8.26 Boilers fixed 18.8.26 Engines tried under steam 28.8.26 Completion of fitting sea connections 9.8.26 Stern tube 9.8.26 Screw shaft and propeller 9.8.26 Main boiler safety valves adjusted 28.8.26 Thickness of adjusting washers P 3/8 + 3/8 S 3/8 + 3/8 F P 3/8 S 13/32

Material of Crank shaft Steel Identification Mark on Do. 5178D M.R. Material of Thrust shaft Steel Identification Mark on Do. 5178D

Material of Tunnel shafts " Identification Marks on Do. do Material of Screw shafts do Identification Marks on Do. do

Material of Steam Pipes S.D. Steel 5 1/2" Bore + 1/4" thick Test pressure 615 lbs per sq"

Is an installation fitted for burning oil fuel  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  If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The engines & boilers of this vessel have been built under special survey, and in accordance with the approved plans. The materials and workmanship are sound & good. The machinery satisfactorily fitted on board, tried under working conditions & found good. Safety valves adjusted under steam, and all pumping arrangements found in order. The machinery is eligible in my opinion to have record in the Register Book of L.M.C. 9.26, O.G.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9.26. OG. FD.

*J.H.G.* 16/9/26

The amount of Entry Fee ... £ 5 : 0 : When applied for, 14.9.1926  
Special ... £ 81 : 14 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : : When received, 25.10.1926

*John H. Mackintosh* and *P. Fitzgibbon*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Assigned + L.M.C. 9.26 O.G. **17 SEP 1926** CERTIFICATE WRITER



Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.