

Rpt. 4.

REPORT ON MACHINERY.

No. 36528
11 NOV 1925

Date of writing Report

When handed in at Local Office

10/11 1925 Port of Hull

No. in Survey held at Reg. Book.

Hull

Date, First Survey 20/4/25. Last Survey 2/11/1925

(Number of Visits 29)

Gross Tons 207
Net Tons 76

Master on the S.S.

"NOBLEMAN"

By whom built Cockburn & Sons Ltd (1925)

Engines made at Hull

By whom made Earles S.B. & E. C. Ltd. (A 260) when made 1925.

Boilers made at Hull

By whom made Earles S.B. & E. C. Ltd. when made 1925.

Registered Horse Power

Owners United Towing Co. Ltd. Port belonging to Hull.

Nom. Horse Power as per Section 28 112

Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted yes

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders $14\frac{1}{2} \times 24 \times 40$ Length of Stroke 27 Revs. per minute

Dia. of Screw shaft as per rule 8.42 as fitted 9" Material of screw shaft Steel

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 in the propeller boss ✓ 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 3-6 ✓

Dia. of Tunnel shaft as per rule 7.22 as fitted 7.22 Dia. of Crank shaft journals as per rule 7.22 as fitted 7.22 Dia. of Crank pin 7.22 Size of Crank webs $5\frac{1}{8} \times 14\frac{1}{2}$ Dia. of thrust shaft under collars 7.22 Dia. of screw 10-0 Pitch of Screw 12-0 No. of Blades 4 State whether moveable no Total surface 40 sq

No. of Feed pumps 2 Diameter of ditto 2.2 Stroke 18 Can one be overhauled while the other is at work yes ✓ No. of Bilge pumps 2 Diameter of ditto 2.2 Stroke 18 Can one be overhauled while the other is at work yes ✓

No. of Donkey Engines one Sizes of Pumps 6 x 4.2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room one 2.2 dia. Boiler room one 2.2 dia. In Holds, &c. Forward bilge one 2 dia, Tunnel well one 2 dia.

No. of Bilge Injections 1 sizes 4 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2.2 gals ✓

Are all the bilge suction pipes fitted with roses ✓ Are the roses in Engine room always accessible ✓ 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 the Discharge Pipes above or below the deep water line above ✓

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate yes ✓

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes ✓ How are they protected wood casing ✓

What pipes are carried through the bunkers forward suction ✓ 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 ✓ Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Sted Co. of Scotland. Fordingham & S. Co. ✓

Total Heating Surface of Boilers 2020 Is Forced Draft fitted no No. and Description of Boilers One S.E. main. ✓

Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 1-7-25 No. of Certificate 3557 ✓

Can each boiler be worked separately ✓ Area of fire grate in each boiler 60.5 sq ✓ No. and Description of Safety Valves to each boiler 2 spring loaded Area of each valve 6.490 Pressure to which they are adjusted 180 lbs. ✓ Are they fitted with easing gear yes ✓

Smallest distance between boilers or uptakes and bunkers or woodwork 18" INT. Mean dia. of boilers 14-6 Length 11-3 Material of shell plates S ✓

Thickness 1.32 Range of tensile strength 29/33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R. ✓

long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1.3/16 Pitch of rivets 8.3/16 Lap of plates or width of butt straps 17.5/8 ✓

Per centages of strength of longitudinal joint rivets 87 Working pressure of shell by rules 181 Size of manhole in shell 16 x 12 ✓

Size of compensating ring 32 x 30 x 1.7/32 No. and Description of Furnaces in each boiler 3 plain. ✓ Material S Outside diameter 43.1/8 ✓

Length of plain part top 87.2 Thickness of plates bottom 81.2 Description of longitudinal joint welded. ✓ No. of strengthening rings 11 ✓

Working pressure of furnace by the rules 188.5 Combustion chamber plates: Material S Thickness: Sides 11/16 Back 21/32 Top 23/32 Bottom 11/16 ✓

Pitch of stays to ditto: Sides 8.1/2 x 9.1/4 Back 9.1/8 x 8.1/4 Top 8 x 11.1/2 If stays are fitted with nuts or riveted heads nuts ✓ Working pressure by rules 185. ✓

Material of stays S Area at smallest part 1.7/8 dia. Area supported by each stay 78.60 Working pressure by rules 193.5 End plates in steam space: ✓

Material S Thickness 1.1/4 Pitch of stays 20.3/4 x 19.1/4 How are stays secured D.N. ✓ Working pressure by rules 182 Material of stays S ✓

Area at smallest part 3.1/4 dia. Area supported by each stay 400.0 Working pressure by rules 201 Material of Front plates at bottom S ✓

Thicknes 32 Material of Lower back plate S ✓ Thickness 27/32 Greatest pitch of stays 14.1/2 x 8.1/4 Working pressure of plate by rules 208 ✓

Diameter of tubes 3.1/2 Pitch of tubes 5.1/4 } 4.3/4 } 4.3/4 Material of tube plates S Thickness: Front 29/32 Back 27/32 Mean pitch of stays 10.1/2 ✓

Pitch across wide water spaces 14.1/2 x 9.1/2 Working pressures by rules 188 Girders to Chamber tops: Material S Depth and thickness of girder at centre 10.1/4 x 1.7/8 Length as per rule 2.9.3/4 Distance apart 11.1/2 Number and pitch of stays in each 3 @ 8. ✓

Working pressure by rules 189. Steam dome: description of joint to shell ✓ Diam. of rivet holes ✓

Diameter Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Thickness ✓ How stayed ✓

Pitch of rivets Working pressure of shell by rules ✓ Crown plates ✓

SUPERHEATER. Type ✓ Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓

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

Date of Test ✓ Pressure to which each is adjusted ✓

Diameter of Safety Valve ✓

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two top end bolts & nuts, 2 bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set of coupling bolts & nuts, 1 set of feed pump valves, 20 condenser ferrules, 3 condenser tubes, 24 condenser packings, 6 junk ring studs, 1 set air pump valves, 1 set circulating pump valves, 1 set donkey pump valves, 1 main feed check valve, 1 donkey check valve, 3 boiler tubes, 6 stay nuts, 1 safety valve spring. spare propeller. 4 stationary fire bars. 4 rocking fire bars.

The foregoing is a correct description,

SHIPBUILDING & ENGINEERING CO. L^{td} MITCHELL

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1925: Apr 20. May 5. 12. 18. 29 Jun 2, 16. 22, 23. 25. 26. 29. Jul 1. 8. 14. 27
During erection on board vessel -- Aug 5. 6. 11. 12. 13. 14. 19. Sep. 10. 17. Oct. 23. 28. 29. Nov 2.
Total No. of visits 29

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 16-6-25 Slides 23-6-25. Covers 16-6-25. Pistons 23-6-25 Rods 26-6-25.

Connecting rods 26-6-25. Crank shaft 16-6-25 Thrust shaft 16-6-25 Tunnel shafts 16-6-25 Screw shaft 16-6-25. Propeller 16-6-25

Stern tube 16-6-25 Steam pipes tested 14-8-25. Engine and boiler seatings 22-8-25. Engines holding down bolts 12-8-25

Completion of pumping arrangements 29-10-25 Boilers fixed 12-8-25. Engines tried under steam 29-10-25.

Completion of fitting sea connections 22-6-25 Stern tube 22-6-25. Screw shaft and propeller 14-7-25.

Main boiler safety valves adjusted 28-10-25. Thickness of adjusting washers P. $\frac{9}{32}$ F. S $\frac{3}{8}$ F.

Material of Crank shaft Steel. Identification Mark on Do. 163 P.F. Material of Thrust shaft Steel. Identification Mark on Do. 163 P.F.

Material of Tunnel shafts Steel. Identification Marks on Do. 163 P.F. Material of Screw shafts Steel. Identification Marks on Do. 163 P.F.

Material of Steam Pipes S.D. Steel, $4\frac{1}{2}$ dia $\frac{1}{4}$ thick. Test pressure .540 lbs per sq. in.

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 engines & boiler of this vessel have been built under special survey, & in accordance with the approved plans & the Rules of this Society. The materials & workmanship are good. The machinery has been satisfactorily fitted on board, tried under working conditions, & found good. The steam & feed pipes have been tested by hydraulic pressure to Rule requirements. The safety valves have been adjusted under steam & tried for accumulation. The machinery is eligible in my opinion to have the record + LMC 11.25. in the Register Book.

It is recommended that this vessel be classified for THE RECORD + LMC 11.25.

C. J. Fitzgerald
11/11/25.

The amount of Entry Fee ... £ 3 : - :
Special ... £ 28 : - :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ :
When applied for. 10/11/25
When received. 20/12/25

R. Fitzgerald.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 13 NOV 1925

Assigned

+ L.M.C. 11.25

CERTIFICATE WRITTEN



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