

Rpt. 4. **REPORT ON MACHINERY.** No. 3444

Port of Singapore Received at London Office _____ 19____
 No. in Survey held at Singapore Date, first Survey 23/10/20 Last Survey 7/3/21 19____
 Reg. Book. _____ " (Number of Visits 24)
 on the Machinery & boiler of steel ste tug "DALMORE"
 Master _____ Built at Leith By whom built Craw & Somerville Ltd Tons { Gross 59.17
 _____ at Singapore When built 1921 Net 22.47
 Engines made at Leith By whom made Craw & Somerville Ltd when made 1920
 Boilers made at Glasgow By whom made A. Anderson & Co when made 1920
 Registered Horse Power 23 Owners Lopham Jones & Railton Ltd Port belonging to Singapore
 Nom. Horse Power as per Section 28 29 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 10" - 22" Length of Stroke 15" Revs. per minute 155 Dia. of Screw shaft _____
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube _____
 in the propeller boss _____ If the liner is in more than one length are the joints turned _____
 between the bearings in the stern tube, is the space charged with a plastic material _____
 liners are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush _____
 Dia. of Tunnel shaft _____ Dia. of Crank shaft _____ Dia. of Crank pin _____ Size of Crank webs _____
 No. of Feed pumps _____ Stroke _____ Can one be overhauled while the other is at work _____
 No. of Bilge pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
 No. of Donkey Engines _____ Sizes of Pumps _____ No. and size of Suctions connected to both Bilge and Donkey pumps _____
 in Engine Room 2 @ 2" In Holds, &c. 1 @ 2" fwd 1 @ 2" aft.
 No. of Bilge Injections 1 sizes 2" Connected to condenser, or to circulating pump cp. Is a separate Donkey Suction fitted in Engine room & size 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 Yes
 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 Yes
 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
 Dates of examination of completion of fitting of Sea Connections 3.12.20 of Stern Tube 24.11.20 Screw shaft and Propeller 3.12.20
 Is the Screw Shaft Tunnel watertight no tunnel Is it fitted with a watertight door _____ worked from _____

HEATERS, &c.—(Letter for record S) Manufacturers of Steel D. Colville & Sons Ltd
 Heating Surface of Boilers 615 ft Is Forced Draft fitted no No. and Description of Boilers One P.E. Marine
 Working Pressure 150 Tested by hydraulic pressure to 300 Date of test 31.5.20 No. of Certificate 15315
 Can each boiler be worked separately Yes Area of fire grate in each boiler 29 ft No. and Description of Safety Valves to _____
 boiler 2 Direct Spring Area of each valve 7.9" Pressure to which they are adjusted 150 Are they fitted with easing gear Yes
 Greatest distance between boilers or uptakes and bunkers or woodwork 6" Mean dia. of boilers _____ Length _____ Material of shell plates _____
 Thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____
 Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____
 Percentages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____
 No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter _____
 Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____
 Working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____
 Working pressure of stays to ditto: Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____
 Material of stays _____ Diameter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____
 Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____
 Diameter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____
 Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____
 Diameter of tubes _____ Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____
 Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and _____
 Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____
 Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked _____
 Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet _____
 Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____
 Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____
 Area of safety valves to superheater _____ Are they fitted with easing gear _____

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____ When made _____ Where fixed _____

Made at _____ By whom made _____ No. of Certificate _____ Fire grate area _____ Description of Safety _____

Working pressure _____ tested by hydraulic pressure to _____ Date of test _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long. seams _____ Rivets _____ Plates _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____

Working pressure of shell by rules _____ Thickness of shell crown plates _____ Radius of do. _____ No. of stays to do. _____ Dia. of stays _____

Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:—

Please see Gts. Lth. Rpt. 15/81.

The foregoing is a correct description, Manufacturer.

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

Is the approved plan of main boiler forwarded herewith _____ No _____

Is the approved plan of donkey boiler forwarded herewith _____ No _____

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓ Pistons ✓ Rods ✓

Connecting rods ✓ Crank shaft ✓ Thrust shaft ✓ Tunnel shafts ✓ Screw shaft ✓ Propeller ✓

Stern tube ✓ Steam pipes tested 6.1.21 Engine and boiler seatings 2.12.21. Engines holding down bolts 28.12.20

Completion of pumping arrangements 1.3.21. Boilers fixed 28.12.20. Engines tried under steam 1.3.21.

Main boiler safety valves adjusted 1.3.21 Thickness of adjusting washers 5" / 16 11" / 32

Material of Crank shaft ✓ Identification Mark on Do. ✓ Material of Thrust shaft ✓ Identification Mark on Do. ✓

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts ✓ Identification Marks on Do. ✓

Material of Steam Pipes Solid drawn Copper. Test pressure 350 lbs/sq"

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

These engines & boiler have now been securely fitted on board the vessel & tried under steam with satisfactory results. The safety valves have been adjusted as above stated. This machinery is now eligible in my opinion to have notation of LMC 3.21 in the Register Book, as recommended by the Leith Surveyors.

It is submitted that this vessel is eligible for THE RECORD. + LMC. 3.21 C.L.

Belk 16/4/21 A.P.C.

Certificate (if required) to be sent to Committee's Minute.

The amount of Entry Fee.. \$150.00 : When applied for. _____

Special .. £ : _____

Donkey Boiler Fee .. £ : _____

Travelling Expenses (if any) £ : _____

When received, _____

Committee's Minute Assigned

TUE. APR. 19 1921 + LMC 3.21 C.L.

G. G. Ritchie
Engineer Surveyor to Lloyd's Register of British & Foreign Ships

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