

REPORT ON MACHINERY

No. 8354

Received at London Office

WED. MAR. 15 1922

of writing Report March 14 1922 When handed in at Local Office March 14 1922 Port of DUNDEE.

in Survey held at Anchor. Date, First Survey Dec. 1st 1920, Last Survey March 8th 1922.

Book. on the S.S. "MANXSONA" (Number of Visits 18)

ster Built at Anchor, By whom built Crocker Construction Co. Ltd Tons } Gross
Net

ines made at St. Yarmouth. By whom made Wm. Russell & Co. when made

ilers made at Hockton. By whom made Riley Bros. Ltd. when made

gistered Horse Power Owners The Harrowell & Sekali Co. Ltd Port belonging to Ramsay

n. Horse Power as per Section 28 44.4. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no.

INES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

of Cylinders 10" x 16 1/2" x 26 1/2" Length of Stroke 18" Revs. per minute 140. Dia. of Screw shaft as per rule 5.5 Material of screw shaft as fitted 6 1/8" 8-83

e screw shaft fitted with a continuous liner the whole length of the stern Yes Is the after end of the liner made water tight

e propeller boss Yes If the liner is in more than one length are the joints buffed Yes If the liner does not fit tightly at the part

en the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive If two

s are fitted, is the shaft lapped or protected between the liners Length of stern bush 2'-1" ✓

of Tunnel shaft as per rule 4.9 Dia. of Crank shaft journals as per rule 5 1/4" Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under

rs Dia. of screw particulars Pitch of Screw No. of Blades State whether moveable Total surface

of Feeds particulars Diameter of ditto Stroke Can one be overhauled while the other is at work

of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work

of Donkey Engines 1. Sizes of Pumps 5 1/2" x 3 1/2" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps

ngine Room & Boiler Room, 3 @ 2" In Holds, &c. 2 @ 2" in Hold. 1 @ 2" 7ft.

of Bilge Injections one sizes 3" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 2"

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

all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

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

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

pipes are carried through the bunkers Yes How are they protected ✓

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes ✓

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes ✓

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

ERS, &c.—(Letter for record) Manufacturers of Steel

Heating Surface of Boilers 852 Is Forced Draft fitted no. No. and Description of Boilers are single ended.

king Pressure 180 lbs Tested by hydraulic pressure to Date of test No. of Certificate

each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to

boiler Area of each valve Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes

least distance between boilers as uprights and bunkers or woodwork 1/2" Mean dia. of boilers Length Material of shell plates

ness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

entages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell

of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

h of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

ing pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

rial of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

rial Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

ness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

eter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and

ness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

ing pressure by rules Steam dome: description of joint to shell % of strength of joint

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

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

UPERHEATER. 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

IS A DONKEY BOILER FITTED? 20

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. Set of coupling bolts. Spare valves for air, circulating, feed & bilge pumps. Assorted bolts & nuts in various sizes. ✓

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1910 DEC. 1. 10. 20. 1921 JAN. 13. 21. FEB. 14. MAR. 15. JUNE 9. JULY 6. 15. 16. SEP. 24. OCT. 22. D. During erection on board vessel --- 1922 JAN. 25. MARCH. 1. 8. Total No. of visits 18. Is the approved plan of main boiler forwarded herewith " " " donkey " " "

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

Connecting rods ✓ Crank shaft ✓ Thrust shaft ✓ Tunnel shafts 20/12/20 Screw shaft ✓ Propeller 20/12/20

Stern tube 20. 12. 20 Steam pipes tested 28. 6. 21. Engine and boiler seatings 3. 12. 20. Engines holding down bolts 15. 3.

Completion of pumping arrangements 21. 12. 22 Boilers fixed 17. 2. 21. Engines tried under steam 25. 1. 22.

Completion of fitting sea connections 21. 1. 21. Stern tube 21. 1. 21. Screw shaft and propeller 21. 1. 21

Main boiler safety valves adjusted 21. 12. 22 Thickness of adjusting washers S. 29/64 P. 15/32

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 S. D. Copper 2 3/4" Bore x 9 lbs. Test pressure 360 lbs sq

Is an installation fitted for burning oil fuel 20. 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 20 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 satisfactorily fitted on board under special survey, examined under working conditions and found in good order.

The machinery is eligible in my opinion to be classed L.M.C. 3. 22.

For full particulars, please see the following reports, now enclosed:—

Main Engines - Spawick No 83439.

Boiler - Middlebro' - 10291.

It is submitted that this vessel is eligible for THE RECORD. L.M.C. - 3. 22.

[Signature] 27/3/22.

[Signature] J. H. Mackintosh, Engineer Surveyor to Lloyd's Register of Shipping

The amount of Entry Fee ... £ : : When applied for, 1/5 Special ... £ 3 : 0 : 14/3/1922 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ 3 : 16 : 11/5/22

Committee's Minute TUE MAR 28 1922

Assigned + L.M.C. 3. 22

MACHINERY DEPT. WRITTEN.



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