

REPORT ON MACHINERY.

No. 38162.

Received at London Office SEP. 18. 1918

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

in Survey held at Glasgow Date, First Survey Last Survey September 6. 1918
Book. on the S.S. "Macharda" (Number of Visits)

ster Built at Port Glasgow By whom built Russell & Co (710) Tons } Gross
Net

ines made at Glasgow By whom made D. Rowan & Co Ltd 683 when made 1918

ilers made at Glasgow By whom made D. Rowan & Co Ltd (683) when made 1918

gistered Horse Power Owners Port belonging to

m. Horse Power as per Section 28 888.889 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

GINES, &c.—Description of Engines Quadruple expansion No. of Cylinders 4 No. of Cranks 4

a. of Cylinders 28" 40" 57" 82" Length of Stroke 57 Revs. per minute 70 Dia. of Screw shaft as per rule 16.6 Material of steel
as fitted 18.5 screw shaft

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

the propeller boss ✓ If the liner is in more than one length are the joints burned length If the liner does not fit tightly at the part

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

ers are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 5'-10"

a. of Tunnel shaft as per rule 15.35 Dia. of Crank shaft journals as per rule 16.12 Dia. of Crank pin 17" Size of Crank webs 11" Dia. of thrust shaft under

bars 17" Dia. of screw 19-16" Pitch of Screw 18-0 No. of Blades 4 State whether moveable yes Total surface 128 ft²

. of Feed pumps 2 Diameter of ditto 19 1/4" Stroke 30" Can one be overhauled while the other is at work yes

. of Bilge pumps 2 Diameter of ditto 6" Stroke 12" Can one be overhauled while the other is at work yes

. of Donkey Engines 4 Sizes of Pumps 10x12x18 5x6x8 10x9x21 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room (4) 3 1/2" Tunnel Well (1) 3 1/2" (1) 2" In Holds, &c. Nos. 1, 2, 3, 4, 5, 6. two in each 3 1/2"

. of Bilge Injections 1 sizes 12" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2"

re 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 no

re all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both

re 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 Main Discharge below other some

re 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 ✓

That pipes are carried through the bunkers ford suction How are they protected in timbers

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

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

ates of examination of completion of fitting of Sea Connections See Summary Report of Stern Tube D Screw shaft and Propeller D

the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top platform

ILERS, &c.—(Letter for record S) Manufacturers of Steel William Beardmore & Co Limited

11436 # + 2775 # = 14211 # TOTAL HEATING SURFACE 3 DB, & 1 SEAUX. B.

Total Heating Surface of Boilers 11436 # Is Forced Draft fitted yes No. and Description of Boilers 3 Double ended

Working Pressure 220 Tested by hydraulic pressure to 440 Date of test 16-3-14 16-3-14 6-7-14 No. of Certificate 12604. Post 12604. Sea 12791. Centre

Can each boiler be worked separately yes Area of fire grate in each boiler 99 ft² No. and Description of Safety Valves to

each boiler 3 Spring Loaded Area of each valve 11.016 Pressure to which they are adjusted 225- Are they fitted with easing gear yes

smallest distance between boilers or uptakes and bunkers or woodwork about 2'-0" Mean dia. of boilers 13'-3" Length 21'-6" Material of shell plates steel

Thickness 3/32 1/16 Range of tensile strength 28 to 32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams lap 8T7

my. seams butt tube Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 9 3/8" Lap of plates or width of butt straps 20 1/4"

Per centages of strength of longitudinal joint rivets 89.7 Working pressure of shell by rules 220 Size of manhole in shell 16"x12"

Size of compensating ring 30 1/2 x 34 1/2 x 1 1/4 No. and Description of Furnaces in each boiler 6 Dighton Material steel Outside diameter 40 1/8"

Length of plain part top ✓ Thickness of plates crown 3/16 Description of longitudinal joint welded No. of strengthening rings ✓

Working pressure of furnace by the rules 220 Combustion chamber plates: Material steel Thickness: Sides 25/32 Back 3/4" Top 25/32 Bottom 25/32

Pitch of stays to ditto: Sides 10 x 8 1/2 x 7 1/2 Back 10 x 8 1/2 Top 10 x 9 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 222

Material of stays steel Diameter at smallest part 2.39 Area supported by each stay 90" Working pressure by rules 225- End plates in steam space:

Material steel Thickness 1 1/4" Pitch of stays 17 1/2 x 17 1/4 How are stays secured 2 nuts Working pressure by rules 220 Material of stays steel

Diameter at smallest part 7.06 Area supported by each stay 337" Working pressure by rules 221 Material of Front plates at bottom steel

Thickness 5/16" Material of Lower back plate ✓ Thickness ✓ Greatest pitch of stays ✓ Working pressure of plate by rules ✓

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 3/16" Material of tube plates steel Thickness: Front 15/16 Back 25/32 Mean pitch of stays 9.09

Pitch across wide water spaces 13" Working pressures by rules 225- Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 8 9/8 x 7 1/8 Length as per rule 31" Distance apart 9 1/2" Number and pitch of stays in each (2) 10"

Working pressure by rules 220 Superheater or Steam chest; how connected to boiler no Can the superheater be shut off and the boiler worked

separately ✓ Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear



