

# REPORT ON MACHINERY

Received at London Office  
FRI. JUL. 16. 1910

REC'D NEW YORK July 2 1910

Date of writing Report June 25 1910 When handed in at Local Office June 29 1910 Port of TORONTO.

No. in Survey held at TORONTO Date, First Survey Oct. 28. 1910 Last Survey June 19. 1910.  
Reg. Book. on the S. S. GENERAL MURRISON (Number of Visits 38)

Master D. B. SEABORNE Built at TORONTO By whom built DOMINION SHIPBUILDING CO. LTD When built 1910  
Tons Gross 2489.79 Net 1518.56

Engines made at TORONTO By whom made JOHN INGLIS CO. LTD when made 1910

Boilers made at TORONTO By whom made JOHN INGLIS CO. LTD when made 1910

Registered Horse Power Owners DOMINION SHIPBUILDING CO. LTD Port belonging to TORONTO

Nom. Horse Power as per Section 28 328 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

ENGINES, &c.—Description of Engines INVERTED TRIPLE EXPANSION. No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 20 x 33 x 54 Length of Stroke 40 Revs. per minute 95 Dia. of Screw shaft as per rule 11.25 Material of screw shaft O. H. S.  
as fitted 11 7/16

Is 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 in the propeller boss YES If the liner is in more than one length are the joints burned SOLDERED 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 liners are fitted, is the shaft lapped or protected between the liners NO Length of stern bush 4'-3"

Dia. of Tunnel shaft as per rule 10.3 Dia. of Crank shaft journals as per rule 10.8 Dia. of Crank pin 11 Size of Crank webs 7x21 Dia. of thrust shaft under collars 11 Dia. of screw 13.3 Pitch of Screw 12'-8" No. of Blades 4 State whether moveable NO Total surface 54

No. of Feed pumps 2 Diameter of ditto 10x6 Stroke 12 Can one be overhauled while the other is at work YES

No. of Bilge pumps 2 Diameter of ditto 3.5 Stroke 20 Can one be overhauled while the other is at work YES

No. of Donkey Engines 4 Sizes of Pumps 10x6x10, 7x8x10, 10x12x12 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2- 3" IN ENG. ROOM, 1- 3" DIRECT, 2- 3" STOKEHOLD Holds, &c. 2- 3" FORD, - 2- 3" AFT, 1- 3" AFTER HULL

1- 3" TUNNEL WELL.

No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump PUMP Is a separate Donkey Suction fitted in Engine room & size YES- 3"

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 NO

Are all connections with the sea direct on the skin of the ship YES Are they Valves or Cocks VALVES AND COCKS

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 NO

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 2-5B) Manufacturers of Steel Illinois Steel Company

Total Heating Surface of Boilers 5467 Is Forced Draft fitted YES No. and Description of Boilers 2 Cylindrical multitubular, 2SB

Working Pressure 180 Tested by hydraulic pressure to 270 Date of test 22.3.19-31.3.19 No. of Certificate 93 & 94

Can each boiler be worked separately YES Area of fire grate in each boiler 57.75 No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 9.62 Pressure to which they are adjusted 187 Are they fitted with easing gear YES

Smallest distance between boilers or uptakes and bunkers or woodwork 13" Mean dia. of boilers 14-6" Length 11-2 1/2 Material of shell plates O. H. S.

Thickness 1.25 Range of tensile strength 27 1/2 32 Are the shell plates welded or flanged NO Descrip. of riveting: cir. seams Single

long. seams Double Diameter of rivet holes in long. seams 1.3 Pitch of rivets 8.5 ~~lap of plates or~~ width of butt straps 19.75

Per centages of strength of longitudinal joint rivets 94.7 Working pressure of shell by rules 192.5 Size of manhole in shell 12 x 16

Size of compensating ring 33 x 33 x 1.25 No. and Description of Furnaces in each boiler 3 Corrugated Material O. H. S. Outside diameter 46.7

Length of plain part top 6.25 Thickness of plates crown 6.25 Description of longitudinal joint NO No. of strengthening rings 1

Working pressure of furnace by the rules 191.6 Combustion chamber plates: Material O. H. S. Thickness: Sides .625 Back .625 Top .625 Bottom .625

Pitch of stays to ditto: Sides 7.437 Back 7.437 Top 7.5 x 8 If stays are fitted with nuts or riveted heads Twisted Working pressure by rules 180.8

Material of stays O. H. S. Area at smallest part 1.26 Area supported by each stay 55.3 Working pressure by rules 182 End plates in steam space: Material O. H. S. Thickness 1.1 Pitch of stays 16.37 How are stays secured 2 nuts Working pressure by rules 199.6 Material of stays O. H. S.

Area at smallest part 5.41 Area supported by each stay 267.75 Working pressure by rules 210 Material of Front plates at bottom O. H. S.

Thickness 13/16 Material of Lower back plate O. H. S. Thickness .625 Greatest pitch of stays 9 Working pressure of plate by rules 215

Diameter of tubes 2.75 Pitch of tubes 3.75 Material of tube plates O. H. S. Thickness: Front 1/16 Back 1/16 Mean pitch of stays 9.4

Pitch across wide water spaces 13.5 Working pressures by rules 190.5 Girders to Chamber tops: Material O. H. S. Depth and thickness of girder at centre 8.625 1.5 Length as per rule 30 Distance apart 8 Number and pitch of stays in each 3 7.5

Working pressure by rules 220 Steam dome: description of joint to shell NO STEAM DOME % of strength of joint

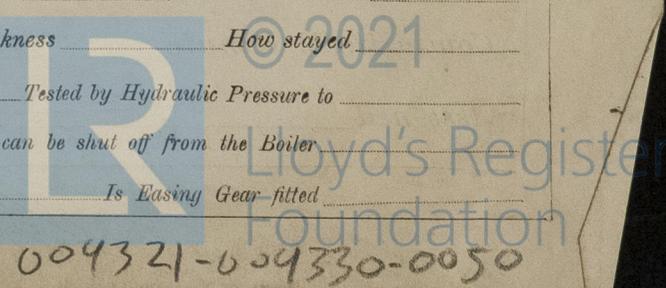
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch 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?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Connecting rod bottom end bolts and nuts.

2 Connecting rod top end bolts and nuts. 2 main bearing bolts and nuts. 1 Set Coupling bolts and nuts. 1 Set bilge pump valves. 1 Set Feed pump valves. 1 Set HP, IP & LP piston rings. assorted bolts and nuts. Iron of various sizes.

The foregoing is a correct description,

John Gypalis Co Limited

Manufacturer.

Dates of Survey while building: During progress of work in shops: Dec 28, Jan 2, 25, 28, Feb 3, 14, 10, 12, 20, 24, 25, 26, 28, Mar 4, 6, 7, 17, 19, 20, 24, 28, 31, Apr 2, 7, 9, 15, 16, 22, 24, May 13, 27, 29, 31, June 10, 12, 17, 16, 19. Total No. of visits: 38.

Is the approved plan of main boiler forwarded herewith? No

Is the approved plan of main boiler forwarded herewith? donkey

Dates of Examination of principal parts: Cylinders 28.3.19, Slides 24.4.19, Covers 28.3.19, Pistons 26.7.19, Rods 9.4.19, Connecting rods 9.4.19, Crank shaft 24.4.19, Thrust shaft 24.4.19, Tunnel shafts 4.3.19, Screw shaft 26.2.19, Propeller Feb 26.2.19, Stern tube 26.2.19, Steam pipes tested 31.5.19, Engine and boiler seatings 10.3.19, Engines holding down bolts 10.6.19, Completion of pumping arrangements 19.6.19, Boilers fixed 27.5.19, Engines tried under steam 16-6-19, Completion of fitting sea connections 27.2.19, Stern tube 27.2.19, Screw shaft and propeller 10.3.19, Main boiler safety valves adjusted 7.6.19, Thickness of adjusting washers P. Boiler - F 3/32, A 1/2, S 1/2 Boiler - F 3/32, A 3/16, Material of Crank shaft O.H.S, Identification Mark on Do. 929, 24.4.19, Material of Thrust shaft O.H.S, Identification Mark on Do. 930, 24.4.19, Material of Tunnel shafts O.H.S, Identification Marks on Do. 903, 904, Material of Screw shafts O.H.S, Identification Marks on Do. 788, 26.2.19, Material of Steam Pipes STEEL, C.S. FLANGES, Test pressure 540 lbs.

Is an installation fitted for burning oil fuel? Yes, Is the flash point of the oil to be used over 150°F? Yes

Have the requirements of Section 49 of the Rules been complied with? Yes

Is this machinery duplicate of a previous case? Yes, If so, state name of vessel GENERAL CURRIE

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

This machinery and boilers have been constructed under special survey. They are of good material and workmanship, and are fitted and secured on board, in accordance with the rules. They are in good working condition, and eligible to have record + L.M.C. 6.19.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 6.19 FII.

Subject to the screw shaft being examined at the joints of the liners before the end of June 1919

J.M. Rell, 18/7/19.

Alexander Scott, Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 15: 00 : When applied for, June 28 1919. Special ... £ 182: 00 : When received, 25/7/19. Donkey Boiler Fee ... £ : : Travelling Expenses (if any) £ : :

Committee's Minute

Assigned

FRI. 25 JUL. 1919

+ L.M.C. 6.19

MACHINERY CERTIFICATE WRITTEN

Lloyd's Register Foundation

Toronto

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