

Rpt. 4.

REPORT ON MACHINERY

WED. FEB. 2 1921

Received at London Office

Date of writing Report June 17 1920 When handed in at Local Office June 18 1920 Port of Toronto

No. in Survey held at Toronto Date, First Survey June 9 19 Last Survey June 12 1920

Reg. Book. on the Harbour Marine No. 1 Canadian Winner (Number of Visits) Gross Tons } Net Tons } When built

Master W. Wingate Built at Victoria B.C. By whom built Harbour Marine Co when made 1920

Engines made at Toronto By whom made The John Inglis Co Ltd when made 1920

Boilers made at Toronto By whom made The John Inglis Co Ltd when made 1920

Registered Horse Power Owners Canadian Merchant Marine Ltd Port belonging to Montreal

Nom. Horse Power as per Section 28 521 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes

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

Dia. of Cylinders 27 44 73 Length of Stroke 48 Revs. per minute Dia. of Screw shaft 14.63 Material of screw shaft A.H.S.

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

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

liners are fitted, is the shaft lapped or protected between the liners Length of stern bush

Dia. of Tunnel shaft 13.3 as per rule 13.97 Dia. of Crank shaft journals 14.5 as fitted 14.5 Dia. of Crank pin 4.5 Size of Crank webs 9x28 Dia. of thrust shaft under collars 14.5 Dia. of screw 17.6 Pitch of Screw 18-9 No. of Blades State whether moveable Total surface

No. of Feed pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room

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

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 Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers How are they protected

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

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) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate

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

Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork 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

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

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

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

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

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

Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules End plates in steam space:

Material of stays Area at smallest part Area supported by each stay Working pressure by rules Material of stays

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom

Area at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules

Thickness 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

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

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

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

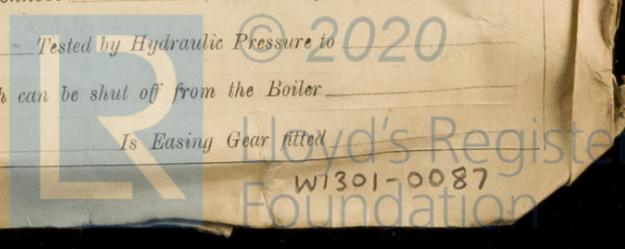
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

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

SUPERHEATER. 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?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

- 2 main bearing bolts + nuts
- 2 Connecting rod top End bolts + nuts
- 2 do do bottom
- 1 Set Coupling bolts + nuts
- 1 Set Sea + bilge pump valves.
- 1 Set H.P. piston rings. 1 piston valve.

The foregoing is a correct description,

John Inglis & Co Ltd Manufacturer.

1919
 Dates of Survey while building { During progress of work in shops -- June 9, Oct 24, Nov 21, 27, Dec 6, 22, 27, Jan 26, 31, 4, 22, 24, 3, 4, 6, 9, 11, 14, 17, 18, 24, 25, 27, Feb, 1, 2, 3, 8, 10, 11, 15, 17, 19, 25, 29, 30, 31
 During erection on board vessel -- Ap. 5, 8, 23, 26, 29, 29, May 3, 5, 7, 11, 14, 19, 20, 25, June 2, 7, 10, 12.
 Total No. of visits

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 8. 4. 20 Slides 10. 6. 20 Covers 8. 4. 20 Pistons 28. 5. 20 Rods 7. 6. 20
 Connecting rods 18. 5. 20 Crank shaft 12. 6. 20 Thrust shaft 12. 6. 20 Tunnel shafts 15. 3. 20 Screw shaft 23. 2. 20 Propeller
 Stern tube 24. 2. 20 Steam pipes tested Engine and boiler seatings Engines holding down bolts
 Completion of pumping arrangements Boilers fixed Engines tried under steam
 Completion of fitting sea connections Stern tube Screw shaft and propeller
 Main boiler safety valves adjusted Thickness of adjusting washers
 Material of Crank shaft *A.S.S.* Identification Mark on Do. 1576/12.6.20 Material of Thrust shaft *A.S.S.* Identification Mark on Do. 1577/12.6.20
 Material of Tunnel shafts *A.S.S.* Identification Marks on Do. 1541-2, 3, 4, 5, 6 Material of Screw shafts *A.S.S.* Identification Marks on Do. 1539, 23.2.20
 Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel 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.)

*This machinery has been Constructed under Special Survey.
 It is of good material and workmanship, and will be eligible
 for record + L.M.C. when properly fitted and tested in vessel.*

*Eng. Stop and Throttle valves - Indicator Cocks - Atmospheric valve
 on air pump - and Springs for escape valve not fitted
 previous to Shipment.*

The amount of Entry Fee ... £	:	:	When applied for,
Special ... £	76	75	June 17 1920
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	1	35	June 19 1920

Committee's Minute FRI. 1 APR. 1921

Assigned See 76 report

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

Rpt. 5.

Date of writing Report *FE*
 No. in Survey held
 Reg. Book.
 on the
 Master *W. Wing*
 Engines made at
 Boilers made at
 Registered Horse Power
 MULTITUBULAR
 (Letter for record *3*)
 Boilers *3* CYLIND
 No. of Certificate
 safety valves to each
 Are they fitted with
 Smallest distance betw
 Material of shell pl
 Descrip. of riveting:
 rules *200*
 boiler *3* CORRUGA
 Description of longitu
 plates: Material *0.1*
 Top *9x7.5* If stay
 smallest part *1.76*
 Pitch of stays *18x*
 Area supported by e
 Lower back plate *0.*
 Pitch of tubes *4.2*
 water spaces *13*
 girder at centre *10*
 Working pressure by
 separately
 holes Pitch of
 If stiffened with ring
 Working pressure o
 VERTICAL D
 Made at
 tested by hydraulic p
 No. of safety valves
 enter the donkey boi
 strength Des
 Lap of plating
 Radius of do.
 Thickness of furnac
 plates
 Thickness of water
 Dates of Survey while building { During p work in
 During e board v
 Total N

