

REPORT ON MACHINERY.

No. 17997

Received at London Office

Date of writing Report 20 May 1922 When handed in at Local Office 22 May 1922 Port of Greenock

WED JUL 25 1922

No. in Survey held at Greenock
Reg. Book.Date First Survey 19th Aug. 1920 Last Survey 19th May 1922

on the

Steel Steamer Bayeskimo(Number of Visits 83)Tons Gross 1391Net 777When built 1922

Master

Built at GreenockBy whom built Greenock & Co LtdEngines made at GreenockBy whom made Greenockwhen made 1920Boilers made at GreenockBy whom made John S Kincaid & Co Ltdwhen made 1922

Registered Horse Power

Owners Hudson Bay CoPort belonging to LondonNom. Horse Power as per Section 28 142Is Refrigerating Machinery fitted for cargo purposes NoIs Electric Light fitted YesENGINES, &c.—Description of Engines Triple CompoundNo. of Cylinders ThreeNo. of Cranks ThreeDia. of Cylinders 16-27-44 Length of Stroke 30 Revs. per minuteDia. of Screw shaft as per rule 9.07Material of steelIs 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 Yes

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 YesLength of stern bush 38Dia. of Tunnel shaft as per rule 8.1Dia. of Crank shaft journals as per rule 8.5Dia. of Crank pin 8 7/8Size of Crank webs 13-6

Dia. of thrust shaft under

collars 8 7/8 Dia. of screw 11.0Pitch of Screw 18.0No. of Blades 4State whether moveable YesTotal surface 40 sq ftNo. of Feed pumps TwoDiameter of ditto 3Stroke 15Can one be overhauled while the other is at work YesNo. of Bilge pumps TwoDiameter of ditto 3 1/2Stroke 15Can one be overhauled while the other is at work YesNo. of Donkey Engines ThreeSizes of Pumps 4-6-7 1/2-8-6-6

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

In Holds, &c.

No. of Bilge Injections FiveConnected to condenser, or to circulating pump Yes

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 S) Manufacturers of Steel Whitcomb & Co GreenockTotal Heating Surface of Boilers 2558 sq ft Is Forced Draft fitted YesNo. and Description of Boilers Two Single EndWorking Pressure 180 lbTested by hydraulic pressure to 360 lbDate of test 25 Oct 1920No. of Certificate 1516Can each boiler be worked separately YesArea of fire grate in each boiler 41 sq ft

No. and Description of Safety Valves to

each boiler Two SpringArea of each valve 49 sq in

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 12.6Length 10.3Material of shell plates steelThickness 1 1/2 Range of tensile strength 28-32Are the shell plates welded or flanged YesDescrip. of riveting: all withlong. seams all chipDiameter of rivet holes in long. seams 1 1/4Pitch of rivets 7 1/4Lap of plates or width of butt straps 16

Per centages of strength of longitudinal joint

rivets 87.5plate 85.3Working pressure of shell by rules 181 lbSize of manhole in shell 16-12Size of compensating ring 7 1/2-1 1/2No. and Description of Furnaces in each boiler 2 DaighanMaterial steelOutside diameter 49 1/2Length of plain part topThickness of plates bottomDescription of longitudinal joint weldedNo. of strengthening rings ConyWorking pressure of furnace by the rules 192 lbCombustion chamber plates: Material steelThickness: Sides 2 1/2Back 1 9/16Top 2 1/2Bottom 1 1/2Pitch of stays to ditto: Sides 9 1/4-8Back 8Top 9 1/4-8If stays are fitted with nuts or riveted heads YesWorking pressure by rules 181 lbMaterial of stays steelArea at smallest part 1.45 sq inArea supported by each stay 64 sq inWorking pressure by rules 181 lb

End plates in steam space:

Material steelThickness 1 1/2Pitch of stays 7 1/2-16How are stays secured all nutWorking pressure by rules 187 lbMaterial of stays steelArea at smallest part 5.05 sq inArea supported by each stay 286 sq inWorking pressure by rules 184 lbMaterial of Front plates at bottom steelThickness 7/16Material of Lower back plate steelThickness 3/16Greatest pitch of stays 13 1/2Working pressure of plate by rules 196 lbDiameter of tubes 3 1/4Pitch of tubes 4 1/2-4 3/8Material of tube plates steelThickness: Front 1 9/16Back 1 1/2Mean pitch of stays 11 1/2Pitch across wide water spaces 14 1/4Working pressures by rules 188 lbGirders to Chamber tops: Material steel

Depth and

thickness of girder at centre 8 1/2-1 1/2Length as per rule 32Distance apart 8Number and pitch of stays in each lin 9 1/4Working pressure by rules 191 lb

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

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *The top end bolts. The bottom end bolts. The main bearing bolts. One set coupling bolts. One set dead forward valves. One set bridge forward valves. Propeller shaft. 4 Propeller blades. 12 Propeller blade fasteners. Safety valve spring. One escape valve spring each leg. Bolts. Nuts. &c.*

The foregoing is a correct description,
FOR JOHN G. KINCAID & COY., LIMITED.

Robert Green Secretary

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1920 Aug. 19. 23. 30. Sept. 2. 6. 8. 11. 14. 17. 22. 28. 30. Oct. 4. 8. 11. 21. 27. 28. Nov. 3. 5. 11. 15. 18. 19. 23. 30. Dec. 2. 8. 10. 15. 1921 Jan. 11. 13. 17.
During erection on board vessel - - 21. Feb. 1. 4. 8. 10. 14. 16. 19. 23. 25. Mar. 4. 9. 30. Apr. 4. 5. 7. 26. May 6. 19. June 6. 7. 8. 10. 14. 21. 24. 27. July 14. 25. Aug. 9. 16. 1922 Apr. 6. 11.
Total No. of visits 83. 13. 19. 21. 25. 17. 23. May 1. 3. 5. 8. 9. 10. 12. 15. 17. 18. 19.
Is the approved plan of main boiler forwarded herewith *yes*

Note X London date

Dates of Examination of principal parts—Cylinders *29/9/20* Slides *29/9/20* Covers *29/9/20* Pistons *29/9/20* Rods *15/9/20*
Connecting rods *15/9/20* Crank shaft *29/9/20* Thrust shaft *25/11/20* Tunnel shafts *13/4/22* Screw shaft *10/5/22* Propeller *19/5/22*
Stern tube *10/5/22* 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 *Steel* Identification Mark on Do. *695 WGN 19-219* Material of Thrust shaft *Steel* Identification Mark on Do. *AN B*
Material of Tunnel shafts *Steel* Identification Marks on Do. *621* Material of Screw shafts *Steel* Identification Marks on Do. *621*
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 *✓* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *Workmanship good.*

The Engines and Boilers of this vessel have been constructed under special survey and tested in the vessel. She has now returned to Anderson where the fitting out will be completed.

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

The amount of Entry Fee ... £ : :
Special *Boiler* ... £ 17 : 2 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *4/7/22*
When received, *4/7/22*

James Jones

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 4 JUL 1922

Assigned *See G.S. Rpt. No. 42031*



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