

REPORT ON MACHINERY.

No. 17297.

Received at London Office

FRI. 24 MAY 1910

Writing Report 9 May 1910 When handed in at Local Office 17th May, 1918. Port of Greenwich
 Survey held at Port Harwar & Greenwich Date, First Survey 22nd Febry, 1916 Last Survey 17th May, 1918
 (Number of Visits 89)

on the Wood Hammer "Montezuma"
 A. H. Claws. Built at Port Harwar By whom built A. Duncan & Co
 Tons { Gross 5037.74
 Net 3187.34
 When built 1910

as made at Greenwich By whom made John S. Kincaid & Co when made 1910

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erred Horse Power Owners Canadian Pacific Railway Co Port belonging to London

Horse Power as per Section 28 538 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

INES, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three

of Cylinders 27" 44" 70" Length of Stroke 48" Revs. per minute 70 Dia. of Screw shaft as per rule 14.95 Material of Steel
 as fitted 15 1/2 screw shaft

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

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

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

are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 60"

of Tunnel shaft as per rule 13.33 Dia. of Crank shaft journals as per rule 13.99 Dia. of Crank pin 14" Size of Crank webs 26.9" Dia. of thrust shaft under

s 14" Dia. of screw 18.3" Pitch of Screw 17.0" No. of Blades 4 State whether moveable Yes Total surface 106 sq ft

of Feed pumps Two Diameter of ditto 4" Stroke 21" Can one be overhauled while the other is at work Yes

of Bilge pumps Two Diameter of ditto 4" Stroke 27" Can one be overhauled while the other is at work Yes

of Donkey Engines Three Sizes of Pumps 18.10 - 6.8 - 5.8 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Three 8 1/2" In Holds, &c. Two 8 1/2" Two 8 1/2"

of Bilge Injections Two sizes 8" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2 1/2"

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 Yes

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 Below

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

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

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 Yes worked from Top of hull

ERS, &c.—(Letter for record S) Manufacturers of Steel Cottrell & Co. Harwar 1910

al Heating Surface of Boilers 5151 sq ft Is Forced Draft fitted Yes No. and Description of Boilers Three long & horizontal

orking Pressure 181 lb Tested by hydraulic pressure to 360 lb Date of test 3/4/10 No. of Certificate 1338

each boiler be worked separately Yes Area of fire grate in each boiler 62 sq ft No. and Description of Safety Valves to

boiler Two opening Area of each valve 9.62" Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes

allest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 15.6" Length 12'0" Material of shell plates Steel

ickness 1 1/4" Range of tensile strength 20 - 32 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams Yes

recast. seams Yes Diameter of rivet holes in long. seams 1 9/16" Pitch of rivets 9 1/8" Lap of plates or width of butt straps 19 1/2"

centages of strength of longitudinal joint 85.6 Working pressure of shell by rules 182 lb Size of manhole in shell 16" 12"

of compensating ring Welded 1 1/4" No. and Description of Furnaces in each boiler 3 long & horizontal Material Steel Outside diameter 49 1/2"

ngth of plain part top 9 1/2" Thickness of plates bottom 9 1/2" Description of longitudinal joint Welded No. of strengthening rings Long

orking pressure of furnace by the rules 180 lb Combustion chamber plates: Material Steel Thickness: Sides 10 1/2" Back 10 1/2" Top 10 1/2" Bottom 10 1/2"

ch of stays to ditto: Sides 9 1/4" - 7 1/4" Back 9 1/4" - 7 1/4" Top 9 1/4" - 7 1/4" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 180 lb

Material of stays Steel Area at smallest part 1.79" Area supported by each stay 684" Working pressure by rules 181 lb End plates in steam space:

Material Steel Thickness 1 9/16" Pitch of stays 21 1/4" How are stays secured Welded Working pressure by rules 180 lb Material of stays Steel

Area at smallest part 8'12" Area supported by each stay 452" Working pressure by rules 186 lb Material of Front plates at bottom Steel

Thickness 1 9/16" Material of Lower back plate Steel Thickness 1 9/16" Greatest pitch of stays 13" Working pressure of plate by rules 188 lb

Diameter of tubes 2 1/2" Pitch of tubes 34 1/2" - 3 1/4" Material of tube plates Steel Thickness: Front 19 1/4" Back 14 1/2" Mean pitch of stays 9 9/16"

itch across wide water spaces 13" Working pressures by rules 187 lb Girders to Chamber tops: Material Steel Depth and

ickness of girder at centre 10 1/2" - 1 1/2" Length as per rule 34.6" Distance apart 9 1/4" Number and pitch of stays in each Three 7 1/4"

Working pressure by rules 183 lb Steam dome: description of joint to shell Yes % of strength of joint Yes

Thicknes of shell plates Material Description of longitudinal joint Welded Diam. of rivet holes 1 9/16"

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IS A DONKEY BOILER FITTED? *No*

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 feed pump valves. One set bridge pump valves. One set feed check valves. Safety valve spring. Three cylinder escape valves and springs. Feed escape valve and spring. Sapecker. Bolt. Nut. &c*

The foregoing is a correct description,

FOR JOHN G. KINCAID & COY., LIMITED.

Robert Green

Manufacturer.

Secretary

Dates of Survey while building { During progress of work in shops -- *(1916) Feb. 22. Apr. 17. May. 3. 23. 26. June. 2. 19. 30. July. 7. 12. 17. Aug. 4. 21. 23. 25. Nov. 14. (1917). Jan. 19. 29. Feb. 8. 20. 22. Apr. 24. May. 8. 11. June. 6. 14. 18. July. 3. Aug. 21. Sep. 26. Oct. 22. 31. Nov. 1. 21. 22. 26. 30. Dec. 3. 6. 13. 17. 20. 25. (1918). Jan. 9. 15. 17. 21. 24. 25. 28. 30. 31. Feb. 4. 6. 8. 14. 18. 20. 22. 25. Mar. 1. 4. 6. 8. 12. 15. 18. 21. 26. 28. Apr. 2. 3. 5. 10. 11. 17. 18. 22. 24. 25. 26. 27. May. 1. 2. 6. 8. 10. 15. 16. 17. --*
Total No. of visits *89.*

Is the approved plan of main boiler forwarded herewith *Yes*

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *8/3/18* Slides *24/4/18* Covers *8/3/18* Pistons *24/4/18* Rods *26/3/18*
Connecting rods *22/2/18* Crank shaft *6/2/18* Thrust shaft *24/3/18* Tunnel shafts *27/4/18* Screw shaft *26/3/18* Propeller *21/3/18*
Stern tube *24/3/18* Steam pipes tested *6/5/18* Engine and boiler seatings *24/3/18* Engines holding down bolts *27/4/18*
Completion of pumping arrangements *27/4/18* Boilers fixed *2/5/18* Engines tried under steam *15/5/18*
Completion of fitting sea connections *24/3/18* Stern tube *24/3/18* Screw shaft and propeller *5/4/18*
Main boiler safety valves adjusted *16/5/18* Thickness of adjusting washers *2 1/4" - 5 2 3/4" - 7 1/4" 5 1 3/4" - 8 2 3/4" 5 1 3/4"*
Material of Crank shaft *1 Unit* Identification Mark on Do. *2303 D* Material of Thrust shaft *1 Unit* Identification Mark on Do. *2306 D*
Material of Tunnel shafts *1 Unit* Identification Marks on Do. *2306 D* Material of Screw shafts *1 Unit* Identification Marks on Do. *2306 D*
Material of Steam Pipes *Main beam Caudal Caudal* Test pressure *Main beam 60 lbs. Caudal 40 lbs.*
Is an installation fitted for burning oil fuel *No* 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 *O. O. 'Ingalgar' No 14 17254*
General Remarks (State quality of workmanship, opinions as to class, &c. *Workmanship good.*)

The Machinery and Boilers of this vessel have been constructed under Special Survey, and placed on board in accordance with the British Rules. They are now in my opinion in safe working condition, and the case is respectfully submitted for the Intimation + L.M.C. 5. 18. in the Register Book. also F. D.

This vessel is fitted to carry oil fuel in double bottom and deep tank. Oil above 150°F. The requirements have been carried out and to be recorded in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C 5. 18. F.D. C.L.

The amount of Entry Fee ... £ *3* : *0* :
Special ... £ *46* : *10* :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *17th May, 1918.*
When received, *24.5.1918*

Committee's Minute *GLASGOW. 23-MAY 1918*

Assigned *+ L.M.C 5. 18*

James Jones
Engineer Surveyor to Lloyd's Register of Shipping.



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Surveyor's Signature

Robt Howie