

REPORT ON MACHINERY

No. 39553.

WED. 28. JAN. 1920

Received at London Office

Date of writing Report

19

When handed in at Local Office

26. 1. 1920. Port of Glasgow

No. in Survey held at Glasgow

Date, First Survey 20/6/17

Last Survey 20/1/20

Reg. Book. on the

S/S **BRANCAI (BRANCAS)**

(Number of Visits 75)

Gross Tons

Net Tons

Master Built at **Stanzemouth** By whom built **Maquignonlli Dochy and Co. No. 1.** When built 1919

Engines made at **Glasgow** By whom made **Ross & Duncan** Sigs to 1028 when made 1919

Boilers made at **Glasgow** By whom made **Ross & Duncan** Bhrs to 1534/5 when made 1919

Registered Horse Power Owners **Russ Chargeurs de L'ouest** Port belonging to **Antes**

Nom. Horse Power as per Section 28 **192** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**

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

Dia. of Cylinders **18" x 29" x 48"** Length of Stroke **33** Revs. per minute **102** Dia. of Screw shaft as per rule **10.2** Material of screw shaft **Iron**

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 **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 **Yes** Length of stern bush **41"**

Dia. of Tunnel shaft as per rule **8.95** Dia. of Crank shaft journals as per rule **9.3** Dia. of Crank pin **9 3/4"** Size of Crank webs **18 x 6 1/2"** Dia. of thrust shaft under collars **9 1/2** Dia. of screw **12-9"** Pitch of Screw **11-6"** No. of Blades **4** State whether moveable **No** Total surface **51 ft²**

No. of Feed pumps **2** Diameter of ditto **3"** Stroke **16 1/2** Can one be overhauled while the other is at work **Yes**

No. of Bilge pumps **2** Diameter of ditto **3 1/2** Stroke **16 1/2** Can one be overhauled while the other is at work **Yes**

No. of Donkey Engines **2** Sizes of Pumps **6-4 1/2 x 6 FEED DONKEY** No. and size of Suctions connected to both Bilge and Donkey pumps **7-8 x 8 BALLAST**

In Engine Room **2-2 1/4** In Holds, &c. **Fore hold 2-2 1/4. after hold 2-2 1/4.**

hold well **1-2 1/4. Tunnel well 1-2 1/4.**

No. of Bilge Injections **1** sizes **4"** Connected to condenser, or to circulating pump **CP** Is a separate Donkey Suction fitted in Engine room & size **Yes 1-2 1/2**

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 **None**

Are all connections with the sea direct on the skin of the ship **Yes** Are they Valves or Cocks **Both**

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 **Bilge Suction** How are they protected **Wood casing**

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**

Dates of examination of completion of fitting of Sea Connections **21-10-19** of Stern Tube **3-11-19** Screw shaft and Propeller **3-11-19**

Is the Screw Shaft Tunnel watertight **Yes** Is it fitted with a watertight door **Yes** worked from **Upper deck**

BOILERS, &c.—(Letter for record **S**) Manufacturers of Steel **D. Corville & Sons**

Total Heating Surface of Boilers **3622 ft²** Is Forced Draft fitted **No** No. and Description of Boilers **Two Single ended multitubular**

Working Pressure **180 lbs** Tested by hydraulic pressure to **360 lbs** Date of test **22-11-18** No. of Certificate **14528**

Can each boiler be worked separately **Yes** Area of fire grate in each boiler **57 1/2** No. and Description of Safety Valves to each boiler **Two spring loaded**

Area of each valve **5.9 ft²** Pressure to which they are adjusted **185** Are they fitted with easing gear **Yes**

Smallest distance between boilers or uptakes and bunkers or woodwork **20"** dia. of boilers **13-6"** Length **10-6"** Material of shell plates **S**

Thickness **1 1/8"** Range of tensile strength **28/32 tons** Are the shell plates welded or flanged **No** Descrip. of riveting: cir. seams **L.D.R.**

long. seams **T.R. All Sharp** Diameter of rivet holes in long. seams **1 1/8"** Pitch of rivets **7 1/2"** Lap of plates **width of butt straps 16 3/8**

Per centages of strength of longitudinal joint rivets **87.5** Working pressure of shell by rules **183** Size of manhole in shell **16" x 12"**

Size of compensating ring **7 1/4" x 1 1/8"** No. and Description of Furnaces in each boiler **Two Corrugated** Material **S** Outside diameter **43 1/4"**

Length of plain part top **17 1/32"** Thickness of plates bottom **17 1/32"** Description of longitudinal joint **weld** No. of strengthening rings **None**

Working pressure of furnace by the rules **189** Combustion chamber plates: Material **S** Thickness: Sides **2 1/32"** Back **20 7/32"** Top **2 1/32"** Bottom **2 1/32"**

Pitch of stays to ditto: Sides **9 1/2" x 8 1/8"** Back **8 1/4" x 8 1/8"** Top **9 1/2" x 8"** If stays are fitted with nuts or riveted heads **Nuts** Working pressure by rules **182**

Material of stays **S** Diameter at smallest part **1 7/8"** Area supported by each stay **76 ft²** Working pressure by rules **185** End plates in steam space:

Material **S** Thickness **1 3/32"** Pitch of stays **18 1/2" x 16 1/2"** How are stays secured **D. nuts** Working pressure by rules **185** Material of stays **S**

Area at smallest part **5.6** Area supported by each stay **305** Working pressure by rules **191** Material of Front plates at bottom **S**

Thickness **13/16"** Material of Lower back plate **S** Thickness **13/16"** Greatest pitch of stays **13 1/4" x 8 1/4"** Working pressure of plate by rules **195**

Diameter of tubes **3 1/2"** Pitch of tubes **4 5/8" x 4 1/2"** Material of tube plates **S** Thickness: Front **13/16"** Back **25/32"** Mean pitch of stays **10 1/4"**

Pitch across wide water spaces **13 1/2"** Working pressures by rules **182** Girders to Chamber tops: Material **S** Depth and thickness of girder at centre **7 1/2" x 1 1/2"**

Length as per rule **29 7/8** Distance apart **8"** Number and pitch of stays in each **2 @ 9 1/2"**

Working pressure by rules **182** Superheater or Steam chest; how connected to boiler **Yes** Can the superheater be shut off and the boiler worked separately **Yes**

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

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

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

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

W1307-0198

VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description				
Made at	By whom made	When made	Where fixed		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler		Dia. of donkey boiler	Length	
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates		Radius of do.	Stayed by	
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— 1 libeack of top & bottom end, main bearing & coupling bolts & nuts
 1 feed suction & 1 feed delivery valve, 1 bilge suction & 1 bilge delivery valve, 1 set of air pump valves, 1 set of circulating pump valve, 1 main feed check valve, 1 donkey check valve, 12 junk + mg studs & nuts, 12 Condens tubes, 6 Boiler tubes (plain), assorted vas won, bolts & nuts

The foregoing is a correct description,
Ross Duncan, Manufacturer.

Dates of Survey while building	During progress of work in shops --	1917. June 20 July 4 Oct 23 Dec 10. 1918 Jan 14. 23. 29. Feb 6. 7. 14. 19. 26. Mar 4. 12. 27. Apr 5. 15. 22.
		May 2. 10. 16. 14. 20. 28. 30. June 10. 17. 14. 21. 25. 28. July 2. 4. 8. 26. 30. Aug 1. 2. 5. 6. 9. 13. 2
		26. 28. 30. Sep 2. 9. 13. Oct 1. 3. 18. 22. 28. Nov 6. 18. 21. 1919 May 29. Oct. 6. 14. 15. 20. 22. 23. 24. Nov 6. 4. 18. 26. Dec 16. 18. 29. 30. 1920 Jan 20.
Total No. of visits	45	

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 17-6-18 Slides 3-10-18 Covers 1-10-18 Pistons 21-6-18 Rods 1-10-18

Connecting rods 1-10-18 Crank shaft 14-6-18 Thrust shaft 14-6-18 Tunnel shafts 20-10-19 Screw shaft 23-10-19 Propeller 23-10-19

Stern tube 23-10-19 Steam pipes tested 18-12-19 Engine and boiler seatings 23-10-19 Engines holding down bolts 16-12-19

Completion of pumping arrangements 20-1-20 Boilers fixed 16-12-19 Engines tried under steam 20-1-20

Main boiler safety valves adjusted 30-12-19 Thickness of adjusting washers S.B. P 3/8 S 5/16 P.B. P 3/16 S 1/4

Material of Crank shaft S Identification Mark on Do. 14-6-18 J.E.S. Material of Thrust shaft S Identification Mark on Do. 14-6-18 J.E.S.

Material of Tunnel shafts S Identification Marks on Do. 20-10-19 J.E.S. Material of Screw shafts Iron Identification Marks on Do. 23-10-19 J.E.S.

Material of Steam Pipes Copper Test pressure 360lb

General Remarks (State quality of workmanship, opinions as to class, &c.)
 These Engines and Boilers have been built under Special Survey and in accordance with the Rules, the materials and workmanship are sound and good. This machinery has been fitted on board in an efficient manner, tried under working conditions and found satisfactory and is eligible in our opinion to be classed with record of L.M.C 1-20.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 1-20.

J.W.D. 2/2/20

The amount of Entry Fee	£ 2 : 0 :	When applied for,
Special	£ 28 : 16 :	26.1.20
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ 3 : 15 :	28/1/20

J. Hillier & W. L. Gordon-Mitchell
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute GLASGOW 27 JAN 1920

Assigned + L.M.C 120



Rpt. 13.
 No. in Reg. Book 35708.
 Owners *W. & A. G. 1000*
 Yard No. 40
DESCRIPTION
 One 8 ft open type
 Capacity of Dyn
 Where is Dyn
 Position of Main
 Positions of
 1-2 way
 6 way
 If fuses are fit
 circuits y
 If vessel is wire
 Are the fuses o
 Are all fuses fit
 are perman
 Are all switches
 Total number of
 A Forward
 B. Aft & Mid
 C. Engine & Boi
 D. Large blue
 E
 2 Mast he
 2. Si
 #
 If are lights, wha
 Where are the su
DESCRIPTION O
 Main cable carryin
 Branch cables car
 Branch cables car
 Leads to lamps car
 Cargo light cables ca
DESCRIPTION O
 1/2 6 copper
 vulcanised
 steel arm
 Joints in cables, ho
 Are all the joints of
 positions, none
 Are there any joint
 How are the cables
 armout

Certificate (if required) to be sent to Glasgow.

The Surveyors are requested not to write on or below the space for Committee's Minute.

26.1.20

MACHINERY CERTIFICATE WRITTEN 28/1/20