

Mo. No. 3829
Mab M. 2620

REPORT ON MACHINERY.

Port of Newcastle

TUES. 15 JUN 1899

in Survey held at Newcastle
took.

on the

s.s "MONT-BLANC"

Received at London Office
Date, first Survey 29th March 1899
Last Survey 24th April 1899
(Number of Visits 34)

1899

Gross 2925.
Tons 2925.
Net 1891.

Crouzat. Built at Middlesbrough By whom built Sir Raylton Dixon & Co Ltd When built 5-1899
es made at Newcastle By whom made The North Eastern Marine Eng'g Co when made 4-1899
es made at Newcastle By whom made The North Eastern Marine Eng'g Co when made 4-1899
tered Horse Power Owners Société Générale de Transports Maritimes à vapeur Port belonging to Marseille
Horse Power as per Section 28244 Is Electric Light fitted No.

INES, &c.—Description of Engines

Triple

No. of Cylinders 3

No. of Cranks 3

Diameter of Cylinders 23", 36 $\frac{1}{2}$ ", 62" Length of Stroke 42" Revolutions per minute 62 Diameter of Screw shaft as per rule 12" as per rule 10 $\frac{1}{2}$ " Diameter of Crank shaft journals 11 $\frac{1}{2}$ " Diameter of Crank pin 11 $\frac{1}{2}$ " Size of Crank webs 22 \times 7 $\frac{1}{2}$ "
Diameter of screw 16·0" Pitch of screw 16·0" No. of blades 4 State whether moveable No Total surface 80 ft²
of Feed pumps 2 Diameter of ditto 3 $\frac{1}{2}$ " Stroke 21" Can one be overhauled while the other is at work Yes
of Bilge pumps 2 Diameter of ditto 3 $\frac{1}{2}$ " Stroke 21" Can one be overhauled while the other is at work Yes
of Donkey Engines 2^{1/2} ft. diameter 10 $\frac{1}{2}$ " No. and size of Suctions connected to both Bilge and Donkey pumps
engine room from 3 $\frac{1}{2}$ " In Hold. &c. Main Hold two 3" dia. Side hold two 3" dia
Bilge hold. Two 3" dia. Tunnel to cu. bue. 2 $\frac{1}{2}$ " dia Cock to drain Off-Leak.
Bilge injections 4" sizes 4" Connected to condenser, or to circulating pump pump Is a separate donkey suction fitted in Engine room & size Yes 3 $\frac{1}{2}$ "
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 None.
all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks both
they fixed sufficiently high on the ship's side to be seen without lifting the stowhold plates Yes Are the discharge pipes above or below the deep water line Above
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
it pipes are carried through the bunkers none How are they protected ✓
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
en were stern tube, propeller, screw shaft, and all connections examined in dry dock new tested. Is the screw shaft tunnel watertight Apparently.
fitted with a watertight door Yes Worked from upper grating in dry room.

TERS, &c.—

(Letter for record S)

Total Heating Surface of Boilers 3500 ft²

Is forced draft fitted No

and Description of Boilers Two, multi, single ended

Working Pressure 180 lb

Tested by hydraulic pressure to 360 lb

re of test 2/11/98 Can each boiler be worked separately Yes Area of fire grate in each boiler 51 ft² No. and Description of safety valves to
a boiler Two, spring loaded Area of each valve 5·93" Pressure to which they are adjusted 180 lb Are they fitted
to easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 14" boiler lagged Mean diameter of boilers 14·6 lb
length 10·6" Material of shell plates Steel Thickness 1 $\frac{1}{2}$ " Description of riveting: circum. seams D.R. lap long. seams D.B.S. straps T.R.
ameter of rivet holes in long. seams 1 $\frac{1}{2}$ " Pitch of rivets 9 $\frac{1}{8}$ " Lap of plates or width of butt straps 19 $\frac{1}{2}$ "
r centages of strength of longitudinal joint rivets 90·2 plate 85·27 Working pressure of shell by rules 209 lb Size of manhole in shell end 16 $\frac{1}{2}$ "
ze of compensating ring flanged in No. and Description of Furnaces in each boiler 3 Suspension Material Steel Outside diameter 44 $\frac{1}{2}$ "
length of plain part top Thickness of plates crown 9" Description of longitudinal joint welded No. of strengthening rings none
bottom Thickness of plates bottom 76" Working pressure of furnace by the rules 198 lb Combustion chamber plates: Material Steel Thickness: Sides 19" Back 32" Top 32" Bottom 8"
Working pressure of furnace by the rules 198 lb Combustion chamber plates: Material Steel Thickness: Sides 19" Back 32" Top 32" Bottom 8"
Pitch of stays to ditto: Sides 8 \times 8" Back 8 \times 8" Top 8 \times 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 190 lb

aterial of stays Steel Diameter at smallest part 1 $\frac{1}{2}$ " eff Area supported by each stay 64" Working pressure by rules 188 lb End plates in steam space:

aterial Steel Thickness 1 $\frac{1}{8}$ " Pitch of stays 15 $\frac{3}{4}$ " + 16" How are stays secured D.N.W. Working pressure by rules 238 lb Material of stays Steel

iameter at smallest part 2 $\frac{1}{2}$ " eff Area supported by each stay 252" Working pressure by rules 200 Material of Front plates at bottom Steel

Thickness $\frac{1}{8}$ " Material of Loucer back plate Steel Thickness $\frac{3}{4}$ " Greatest pitch of stays 14 $\frac{1}{2}$, doubled Working pressure of plate by rules 185 lb

iameter of tubes 3 $\frac{1}{4}$ " Pitch of tubes 4 $\frac{1}{2}$ " + 4 $\frac{1}{2}$ " Material of tube plates Steel Thickness: Front $\frac{5}{8}$ " + $\frac{7}{8}$ " Back $\frac{15}{16}$ " Mean pitch of stays 10 $\frac{1}{2}$ "

Pitch across wide water spaces 14 $\frac{1}{2}$, doubled Working pressures by rules 215 lb Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 8 $\frac{5}{8}$ " + 1 $\frac{1}{2}$ plates Length as per rule 34 $\frac{1}{2}$ " Distance apart 8" Number and pitch of Stays in each 3, 8" pitch

Working pressure by rules 201 lb Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked

separately ✓ Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet

holes ✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓

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

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

DONKEY BOILER— Description *bic. vert. (Cochran's Patent N° 2424)*.
 Made at Birkenhead. By whom made *Cochran & Son*. When made *24.10.98* Where fitted *ford Stockhold*.
 Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs*. No. of Certificate */521*. Fire grate area *19.4 ft²*. Description of safety valves *Spring loaded*.
 No. of safety valves *one*. Area of each *11.04 ft²*. Pressure to which they are adjusted *80 lbs*. If fitted with easing gear *yes*. If steam from main boilers can enter the donkey boiler *no*. Diameter of donkey boiler *6.6"* Length *13.6"* Material of shell plates *STEEL*. Thickness *1/6"*
 Description of riveting long. seams *double lap* Diameter of rivet holes *1/16"* Whether punched or drilled *drilled*. Pitch of rivets *2 3/4"*
 Lap of plating *4 1/8"* Per centage of strength of joint *Rivets 93.2 Plates 70.4* Thickness of shell crown plates *3/2"* Radius of do. *3 1/2"* No. of Stays to do. *✓*
 Dia. of stays. *✓* Diameter of furnace Top *2' 8 1/2"* Bottom *5.4"* Length of furnace *6 ft* Thickness of furnace plates *1/6"* Description of
 joint *single lap*. Thickness of furnace crown plates *9/16"* Stayed by *spherical* Working pressure of shell by rules *83.5 lbs*.
 Working pressure of furnace by rules *105.4 lbs*. Diameter of uptake *19 x 14"* Thickness of uptake plates *1/2"* Thickness of water tubes *✓*
 Signed *J.G. Hunter*.

SPARE GEAR. State the articles supplied:— 1 propeller, 1 tail shaft, 3 crank shaft, 2 top + 2 bottom End
 2 main bearing + 1 set Coupling bolts + nuts, 1 each air + circ: pump rods, 1 L.P. spindle,
 1 set H.P. packing rings, 1 Ecc: shear, 1 thrust ring, 2 safety valves spring. 1 set each
 Air, Circ: + ballast donkey valves, bolts + nuts assorted + iron of various sizes *87*

The foregoing is a correct description,

FOR THE NORTH EASTERN MARINE ENGINEERING CO LTD Manufacturer.

S. J. Garrison

Dates of Survey while building	During progress of work in shops	- 1898. July 29 Aug. 23. 30. Sep. 5. 13. 24. Oct. 4. 17. 24. Nov. 2. 8. 16. 21. Dec. 2. 9.
	During erection on board vessel	- 1899. Feb. 16. Mar. 2. 3. 22. Apr. 6. 11. 18. 20. 24. Mdl. 1899. Mar. 17. 24. Apr. 21. 27. May 15.
Total No. of visits		18. 24. 29. June 3. 5. Thirty-four

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

ENGINES—Length of stern bush *4 - 8"* Diameter of crank shaft journals *as per rule 1 1/8", as fitted 1 1/2"* Diameter of thrust shaft under collars *1 1/2"*

BOILERS—Range of tensile strength *29. 32* Are they welded or flanged *flanged* DONKEY BOILERS—No. 1 Range of tensile strength *✓*

Is the approved plan of main boiler forwarded herewith *yes* Is the approved plan of donkey boiler forwarded herewith *✓* Size *✓*

The machinery of this vessel has been constructed and fitted
 on board under special survey, the workmanship is sound &
 good throughout. The main steam pipes have been
 tested by Hydraulic test to *360 lbs*. The machinery has been
 tried under steam & found satisfactory, which in our
 opinion renders the vessel eligible for the record of
 + L.M.C 6.99 in the Register Book. *below grade out*

It is submitted that
this vessel is eligible for
THE RECORD.

tx. M.C. 6.99

13/6/99

✓

✓

✓

Certificate (if required) to be sent to
(or a Surveyor may be appointed to make one before the same for Committee Minutes.)

The amount of Entry Fee..	£ 2 : .	When applied for,
Special	£ 52 : 7 :	8 MAY 1899
Donkey Boiler Fee	£ . . . :	When received,
Travelling Expenses (if any) £	: . . . :	9 JUN 1899 At N.W.C

Committee's Minute

Assigned

FRI. 16 JUN 1899

ON BEHALF OF
W.H. TATE
W.H. TATE

Robert H. Tate & Son
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

+ L.M.C 6.99

LR-FAF-TB4-23