

REPORT ON MACHINERY.

Received at London Office WED. 16 JAN. 1918

Date of writing Report 31 Dec 1917 When handed in at Local Office 1 Jan 1918 Port of Greenock
 No. in Survey held at Greenock Date, First Survey 23rd August, 1916 Last Survey 28th December, 1917
 Reg. Book. on the Steel Steamer "Marsoud" (Number of Visits 123)
 Master Built at 11 Glasgow By whom built Russell & Co When built 1917
 Engines made at Greenock By whom made John G Kincaid & Co Ltd when made 1917
 Boilers made at Greenock By whom made John G Kincaid & Co Ltd when made 1917
 Registered Horse Power Owners T. & J. Brocklebank, Ltd. Port belonging to Liverpool
 Nom. Horse Power as per Section 28 77 1/2 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple compound No. of Cylinders three No. of Cranks three
 Dia. of Cylinders 28" 4 7/2 - 80" Length of Stroke 54" Revs. per minute 70 Dia. of Screw shaft as per rule 16.02 Material of Steel
 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 no 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 no If two
 liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 69"
 Dia. of Tunnel shaft as per rule 15.14 Dia. of Crank shaft journals as per rule 15.61 Dia. of Crank pin 16" Size of Crank webs 24" 10 1/2 Dia. of thrust shaft under
 collars 16.0" Dia. of screw 18.6" Pitch of Screw 18.8" No. of Blades 4 State whether moveable yes Total surface 110 sq ft
 No. of Feed pumps two Diameter of ditto 12" Stroke 24" Can one be overhauled while the other is at work yes
 No. of Bilge pumps two Diameter of ditto 4 1/2" Stroke 28" Can one be overhauled while the other is at work yes
 No. of Donkey Engines three Sizes of Pumps 7" 18" 12" 18" 8" 12" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room from 3 1/2" In Holds, &c. three 3 1/2" Tunnel 2 1/2"
Circulating Steam separate engine
 No. of Bilge Injections two sizes 10" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size yes 3 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 some
 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 both
 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 How are they protected
 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
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from upper deck

BOILERS, &c.—(Letter for record 2) Manufacturers of Steel Whitby, Spencer Tom & Handman
2559, Orange Road, Hill 14969 (32) the single ended
 Total Heating Surface of Boilers 12410 Is Forced Draft fitted no No. and Description of Boilers two single ended
 Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test 16/11/17 No. of Certificate 1315
 Can each boiler be worked separately yes Area of fire grate in each boiler 123.98 sq ft No. and Description of Safety Valves to
 each boiler two spring Area of each valve 12.56 sq in Pressure to which they are adjusted 205 lb Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 17.0" Length 19.6" Material of shell plates steel
 Thickness 1 1/2" Range of tensile strength 29 1/2 - 33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams all on lap
 long. seams all lap Diameter of rivet holes in long. seams 1 7/2" Pitch of rivets 10 1/2" Lap of plates or width of butt straps 22 1/2"
 Per centages of strength of longitudinal joint rivets 87.0 Working pressure of shell by rules 200 lb Size of manhole in shell 16" x 12"
flanged ring plate 85.41 Size of compensating ring 1 1/2" No. and Description of Furnaces in each boiler 8 straight Material steel Outside diameter 45 1/2"
 Length of plain part top Thickness of plates crown 10 1/2" Description of longitudinal joint welded No. of strengthening rings spring
bottom Working pressure of furnace by the rules 223 lb Combustion chamber plates: Material steel Thickness: Sides 1 1/2" Back Top 1 1/2" Bottom 1 1/2"
 Pitch of stays to ditto: Sides 9 1/2" - 8 1/2" Back Top 9 1/2" - 8 1/2" If stays are fitted with nuts or riveted heads steel Working pressure by rules 202 lb
 Material of stays steel Area at smallest part 2.36 sq in Area supported by each stay 8.1 sq in Working pressure by rules 219 lb End plates in steam space:
 Material steel Thickness 1 7/16" Pitch of stays 23" - 21 1/2" How are stays secured all new Working pressure by rules 201 lb Material of stays steel
 Area at smallest part 9.82 sq in Area supported by each stay 4.86 sq in Working pressure by rules 211 lb Material of Front plates at bottom steel
 Thickness 1 1/2" Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes 5" Pitch of tubes 4 1/2" - 4 1/2" Material of tube plates steel Thickness: Front 1 1/2" Back 1 1/2" Mean pitch of stays 8 1/2" - 8 1/2"
 Pitch across wide water spaces 14" Working pressures by rules 207 lb Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 13 1/2" - 1 1/2" Length as per rule 49.51" Distance apart 8 1/2" Number and pitch of stays in each from 9 1/2"
 Working pressure by rules 205 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

IS A DONKEY BOILER FITTED? ^{Yes} *Main engine bedded* If so, is a report now forwarded? ^{Yes}

SPARE GEAR. State the articles supplied:— *Two top end bolts, Two bottom end bolts, Two main bearing bolts, One set coupling bolts, One set dead pump valves, One set bridge pump valves, Crank pin bush complete, One eccentric strap complete, Two S. P. roller blades, Bolts and nuts for same, Air pump rod, Three safety valve springs. Bolts nuts &c.*

The foregoing is a correct description,

FOR JOHN G. KINCH

J. M. Ingham

DIRECTOR Manufacturer.

Dates of Survey while building { During progress of work in shops - - (1916) Aug. 23-25. Sep. 11-13. Oct. 9-11. 13-20. 24-26. 30. Nov. 13-15. 18-20. 24-26. Dec. 1-3. 6-8. 10-12. 17-21. 24-27. Dec. 1-6. 8-12. 15-22. 26. (1917) Jan. 7-12. 16-17. 19-22. 24-26. 29-31. Feb. 5-8. 11-20. 22. Mar. 2-5. 9. 12-15. 17-21. 24-26. 30. Apr. 2-4. 11-14. 28-31. May 4-6. 11-14. 18-21. 25. June 2-18-20-23-26-30. Aug. 3-7. 10-13-14-21-28-29-30. Sep. 3-5-25-26-27-28-30. Oct. 1-4-5-9-10-11-17-18-19-22-24-25-27-30. Nov. 2-6-7-12-14-16-22-23. Dec. 5-10-13-17-20-21-22-24-25-26-28-31. Total No. of visits 123.

Is the approved plan of main boiler forwarded herewith ^{Yes}

" " *Yes* " " " " ^{Yes}

Dates of Examination of principal parts—Cylinders *26/9/17* Slides *26/9/17* Covers *26/9/17* Pistons *22/10/17* Rods *26/9/17*
Connecting rods *26/9/17* Crank shaft *26/9/17* Thrust shaft *22/10/17* Tunnel shafts *10/12/17* Screw shaft *6/11/17* Propeller *29/10/17*
Stern tube *5/9/17* Steam pipes tested *10/12/17* Engine and boiler seatings *28/9/17* Engines holding down bolts *10/12/17*
Completion of pumping arrangements *10/12/17* Boilers fixed *10/12/17* Engines tried under steam *25/12/17*
Completion of fitting sea connections *25/9/17* Stern tube *25/9/17* Screw shaft and propeller *19/12/17*
Main boiler safety valves adjusted *26/12/17* Thickness of adjusting washers *7 27/64 5 13/32 - 7 1/4 5 13/32 - 7 27/64 5 27/64*
Material of Crank shaft *Steel* Identification Mark on Do. *2307 0* Material of Thrust shaft *Steel* Identification Mark on Do. *2307 0*
Material of Tunnel shafts *Steel* Identification Marks on Do. *2307 0* Material of Screw shafts *Steel* Identification Marks on Do. *2307 0*
Material of Steam Pipes *Steel* Test pressure *600 lbs*
Is an installation fitted for burning oil fuel ^{Yes} Is the flash point of the oil to be used over 150°F. ^{Yes}
Have the requirements of Section 49 of the Rules been complied with ^{Yes}
Is this machinery duplicate of a previous case ^{Yes} If so, state name of vessel ^{Yes}

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

The machinery and boiler of this steamer have been constructed under special survey and placed on board in accordance with the Society's Rules. They are now in my opinion in safe working condition and the case is respectfully submitted for the notification + L.M.C. 12-17. in the Register Book.

This vessel has been fitted to carry oil fuel above 150°F in double bottom and deep tank. requirements complied with.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 12.17.

J.M.
18/1/18
James James
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3 : 0 :
Special ... £ 58 : 12 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 5th Jan, 1918.
When received, 12th Jan, 1918.

Committee's Minute GLASGOW 15 JAN 1918

Assigned + L.M.C. 12, 17
Carrying fuel fitted for oil fuel above 150°F. in double bottom + D.B.



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Greenock

Certificate (if required) to be sent to

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

14/1/18