

## REPORT ON MACHINERY.

No. 75994

Date of writing Report Sept 16<sup>th</sup> 1922 When handed in at Local Office Sept 26<sup>th</sup> 1922 Port of NEWCASTLE-ON-TYNE  
 No. in Survey held at Mallesend-on-Tyne Date, First Survey Feb 22<sup>nd</sup> Last Survey Sept 19<sup>th</sup> 1922  
 Reg. Book. 79014 on the Steel Deck Steamer "Hermes" (Number of Visits 34)  
 Master - Built at Millington Quay By whom built Worthington & Co. Ltd. S. B. & Co. Ltd. Tons { Gross 5800  
 Engines made at Mallesend-on-Tyne By whom made Worthington & Co. Ltd. Eastern Marine Engineering Co. Net 3660  
 Boilers made at SE By whom made SE When built 1922  
 Registered Horse Power ✓ Owners The Moor Line Ltd. when made 1922  
 Nom. Horse Power as per Section 28 568.5 Is Refrigerating Machinery fitted for cargo purposes No Port belonging to London  
 Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 24-45-75 Length of Stroke 51 Revs. per minute 74 Dia. of Screw shaft as per rule 14.9 Material of 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 - 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 - If two  
 liners are fitted, is the shaft lapped or protected between the liners - Length of stern bush 5-8  
 Dia. of Tunnel shaft as per rule 13.67 Dia. of Crank shaft journals as per rule 14.36 Dia. of Crank pin 14 3/8 Size of Crank webs 22 1/2 x 9 1/2 Dia. of thrust shaft under  
 collars 15 Dia. of screw 14-9 Pitch of Screw 14-9 No. of Blades 4 State whether moreable No Total surface 96 ft<sup>2</sup>  
 No. of Feed pumps 2 Diameter of ditto 4 Stroke 27 Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 27 Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines 2 Sizes of Pumps 9" + 11" + 12" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 4-3 1/2" (2 in E. Room + 2 in stokehold) In Holds, &c. Holds 10-1.2.3.4 each 2-3 1/2"  
 one 2 1/2" Tunnel well suction  
 No. of Bilge Injections 1 sizes 10" Connected to condenser or to circulating pump Yes 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 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 Below  
 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 None 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 platform

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel John Spencer  
 For fees 84.48 Total Heating Surface of Boilers 8604 Is Forced Draft fitted Yes No. and Description of Boilers 3 S. & C. Multitubular  
 Working Pressure 180 lbs Tested by hydraulic pressure to 320 lbs Date of test 25-8-22-3 No. of Certificate 9682-1  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 64.6 sq ft No. and Description of Safety Valves to  
 each boiler 2 Spring loaded Area of each valve 9.62 sq Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 19" Mean dia. of boilers 15-9" Length 42-0" Material of shell plates steel  
 Thickness 3/16" Range of tensile strength 29 3/4" Are the shell plates welded or flanged No Descrip. of riveting: cir. seams S. & C.  
 long. seams S. & C. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 8 3/4" Lap of plates or width of butt straps 18 1/2"  
 Per centages of strength of longitudinal joint 84.8 Working pressure of shell by rules 182 1/4 Size of manhole in shell 16" x 12"  
 Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Morrison's Material steel Outside diameter 4-2 1/2"  
 Length of plain part top Thickness of plates crown Description of longitudinal joint Welded No. of strengthening rings -  
 Working pressure of furnace by the rules 186 Combustion chamber plates: Material steel Thickness: Sides 23/32 Back 23/32 Top 23/32 Bottom 1 7/8"  
 Pitch of stays to ditto: Sides 9 1/4" x 4" Back 10" x 9 1/4" Top 10 1/2" x 9" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 182 lbs  
 Material of stays steel Area at smallest part 2.03 sq Area supported by each stay 94.5" Working pressure by rules 187 End plates in steam space:  
 Material steel Thickness 1 1/16" Pitch of stays 23 3/4" x 22 1/2" How are stays secured D. & H. Working pressure by rules 182 Material of stays steel  
 Area at smallest part 9.62 sq Area supported by each stay 534 sq Working pressure by rules 187 Material of Front plates at bottom steel  
 Thickness 1" Material of Lower back plate steel Thickness 29/32" Greatest pitch of stays 14 1/2" x 9 3/4" Working pressure of plate by rules 186  
 Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 5/8" Material of tube plates steel Thickness: Front 1" Back 13/16" Mean pitch of stays 7 1/2" x 7 1/4"  
 Pitch across wide water spaces 14 1/2" Working pressures by rules 182 lbs Girders to Chamber tops: Material steel Depth and  
 thickness of girder at centre 9-2" Length as per rule 38" Distance apart 10 1/2" Number and pitch of stays in each 3-9"  
 Working pressure by rules 180 Steam dome: description of joint to shell None % 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 None 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?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 top & 2 bottom end bolts & nuts. 2 main bearing bolts & nuts, a set of coupling bolts & nuts. 2 propeller, propeller shaft, a set of feed and 4 ballast donkey valves, assorted bolts & nuts, iron of various sizes 2 feed & 2 bilge pump valves. 12 fine iron studs. 50 brass condenser turnbuckles, one dozen gauge glasses. 100 fine bars & 2 wood patterns. 6 cylinder cone sheets, a set of metallic packing for main engine feed pumps.

The foregoing is a correct description,

THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

J. Sparrow

Manufacturer.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits

1922. Feb 22. March 14. 29. April 6. 11. 19. 25. May 3. 23. 30. June 2. 30. July 1. 3. 7. 14. 19. 21. 26. July 28. 30. Aug 2. 10. 15. 18. 22.

1922. Aug 25. 29. Sept 5. 7. 12. 15. 18. 19

34

attached to report on S.S. "Salemoo" Is the approved plan of main boiler forwarded herewith

NO

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 29.5.22 Slides 29.5.22 Covers 29.5.22 Pistons 15.8.22 Rods 15.8.22 Connecting rods 15.8.22 Crank shaft 2.8.22 Thrust shaft 30.6.22 Tunnel shafts 14.4.22 Screw shaft 26.4.22 Propeller 4.4.22 Stern tube 29.5.22 Steam pipes tested 23.8.22 6.9.22 Engine and boiler seatings 4.9.22 Engines holding down bolts 12.9.22 Completion of pumping arrangements 15.9.22 Boilers fixed 12.9.22 Engines tried under steam 15.9.22 Completion of fitting sea connections 18.8.22 Stern tube 18.8.22 Screw shaft and propeller 12.9.22 Main boiler safety valves adjusted 15.9.22 Thickness of adjusting washers Port P=8=7/16 Centre P=8=3/8 Starboard P=8=5/16 Material of Crank shaft steel Identification Mark on Do. 28.4.22 WRA 6.36 28.4.22 Material of Thrust shaft steel Identification Mark on Do. 30.6.22 RLA 2492 26.4.22 WRA 18.8.22 NR Material of Tunnel shafts steel Identification Marks on Do. 14.4.22 NR Material of Screw shafts Iron Identification Marks on Do. 18.8.22 NR Material of Steam Pipes S.S. Copper Test pressure 360 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

Yes

If so, state name of vessel

S.S. "Salemoo"

General Remarks (State quality of workmanship, opinions as to class, &c. This vessel's machinery has been examined during construction, and the materials and workmanship are good, and in accordance with the requirements of the rules, and the approved plans. On completion it was submitted to a steam trial and found satisfactory at which time the safety valves were adjusted under steam to the working pressure. It is therefore eligible to be classed in my opinion with the notation of +LMC 9.22 in the R. Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9.22. F.D. CL.

J.W. 3/10/22

The amount of Entry Fee ... £ 6 : : When applied for, Special ... £ 103 : : 29/9/22 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 13.10.22

Committee's Minute

FRI. 6 OCT. 1922

Assigned

+ LMC 9.22 30, CL

Mamie Pitson

Engineer Surveyor to Lloyd's Register of Shipping.

MACHINERY DEPT. 10/10/22



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