

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

Received at London Office FRI. 1 FEB. 1924

Date of writing Report 19 When handed in at Local Office 26/1/24 Port of NEWCASTLE-ON-TYNE  
 No. in Survey held at Newcastle Date, First Survey 22 March 1924 East Survey 25 January 1924  
 Reg. Book. 40943 on the Steel Se. SNOWDON (Number of Visits 45)  
 Built at Newcastle By whom built Northumberland S.S. Co. Ltd. Yard No. 283 Tons { Gross 5230  
 Engines made at Newcastle By whom made N.E. Marine Eng. Co. Ltd. Engine No. 2541 when made 1924 Net 3220  
 Boilers made at Newcastle By whom made N.E. Marine Eng. Co. Ltd. Boiler No. 2541 when made 1924  
 Registered Horse Power Owners Swardon S.S. Co. Ltd. Port belonging to Cardiff  
 Nom. Horse Power as per Rule 381 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

**ENGINES, &c.**—Description of Engines *Inverted - Triple Expansion*  
 Dia. of Cylinders 25" 41" 68" Length of Stroke 48" Revs. per minute No. of Cylinders 3 No. of Cranks 3  
 Dia. of Crank shaft journals as per rule 13.33" as fitted 14" Dia. of Crank pin 14" Crank webs Mid. length breadth 22 3/4" Mid. length thickness 8 1/4" Thickness parallel to axis 8 1/4" Thickness around eye-hole 6 1/2"  
 Diameter of Thrust shaft under collars as per rule 13.33" as fitted 14" Diameter of Tunnel shaft as per rule 12.695" as fitted 13 1/4" Diameter of Screw shaft as per rule 14.18" as fitted 15 1/2" 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 watertight 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 Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated  
 Pitch of Propeller 17' 3" No. of Blades Four State whether Moveable Total Surface 92 sq. square feet.  
 No. of Feed Pumps fitted to the Main Engines Two Diameter of ditto 4" Stroke 26" Can one be overhauled while the other is at work Yes  
 No. of Bilge Pumps fitted to the Main Engines Two Diameter of ditto 4 1/2" Stroke 26" Can one be overhauled while the other is at work Yes  
 Total number and size of power driven Feed and Bilge Auxiliary Pumps Two - One 7x5x8 Feed - One 6x4x8 Aux. Feed - One 9 1/2"x10" Ballast One 7x7x8 Am. Gr.  
 No. and size of Pumps connected to the Main Bilge Line 2 Main Engine and Ballast pumps  
 No. and size of Ballast Pumps One 9"x11"x10" No. and size of Lubricating Oil Pumps, including Spare Pump None  
 Are two independent means arranged for circulating water through the Oil Cooler No. and size of suction connections to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room Two 3 1/2" and in Holds, &c. No. 1 Hold Two 3", No. 2 Hold 4 Cross Bunker Two - 3 1/2" No. 3 Hold Two - 3" No. 4 Hold Two - 3" Tunnel Well One 2 1/2"  
 No. and size of Main Water Circulating Pump Bilge Suctions One 9" No. and size of Donkey Pump Direct Suctions to the Engine Room Bilges One 4 1/2" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes  
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes  
 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 Forward Bilge Suctions How are they protected Wood-cased  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Yes Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Cylinder Top platform

**MAIN BOILERS, &c.**—(Letter for record S ) Total Heating Surface of Boilers 6330 sq ft  
 For ced Draft fitted No. No. and Description of Boilers 3 S. E. Mult. Cyl. Working Pressure 180 lbs  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded?

**PLANS.** Are approved plans forwarded herewith for Shafting Main Boilers Yes Auxiliary Boilers Donkey Boilers  
 (If not state date of approval)  
 General Pumping Arrangements Oil fuel Burning Piping Arrangements

**SPARE GEAR.** State the articles supplied:— 2 Top End bolts & nuts. 2 Bottom End bolts & nuts. 2 main Bearing Bolts  
 One set Coupling Bolts - for feed & bilge pump valves - quantity of assorted Bolts - nuts & rivets  
 Back Sea propellers - screw shaft

The foregoing is a correct description  
 THE NORTH EASTERN MARINE ENGINEERING Co., LTD.

J. J. Harrison  
 Secretary.

Manufacturer.



© 2019  
 Lloyd's Register  
 Foundation

w225-0048

4. 77502.

1923  
 Mar 22. Apr. 19. May 3. 7. 16. 17. June 1. 6. 7. 12. 13. 20. July 3. 12. 13. 18. 19. 26. 27. Aug. 3. 15. 16. 22. 28.  
 31. Sep. 4. 7. 14. Oct. 2. 9. 12. 16. 24. 26. Nov. 8. 9. 20. 30. Dec. 7.  
 1924  
 Jan. 10. 15. 17. 22. 24. 25.

Dates of Survey while building  
 During progress of work in shops - -  
 During erection on board vessel - - -  
 Total No. of visits 45

Dates of Examination of principal parts - Cylinders 16.8.23 28.8.23 14.9.23 Slides 2.10.23  
 Covers 2.10.23 Pistons 12<sup>th</sup> June 1923 Rods 17<sup>th</sup> May 1923  
 Connecting rods 16.8.23 Crank shaft 13<sup>th</sup> July 1923 Thrust shaft 19<sup>th</sup> April 1923  
 Tunnel shafts 7<sup>th</sup> June 1923 Screw shaft 1<sup>st</sup> June 1923 Propeller 10<sup>th</sup> January 1924  
 Stern tube 30<sup>th</sup> Nov. 1923 Engine and boiler seatings 7<sup>th</sup> Dec. 1923 Engines holding down bolts 22<sup>nd</sup> Jan. 1924  
 Completion of pumping arrangements 25<sup>th</sup> Jan. 1924 Boilers fixed 22<sup>nd</sup> Jan. 1924 Engines tried under steam 25<sup>th</sup> Jan. 1924  
 Completion of fitting sea connections 7<sup>th</sup> Dec. 1923 Stern tube 7<sup>th</sup> Dec. 1923 Screw shaft and propeller 15<sup>th</sup> January 1924  
 Main boiler safety valves adjusted 25<sup>th</sup> Jan. 1924 Thickness of adjusting washers P 13/32" S 15/32" P 7/16" S 13/32" P 1/2" S 1/2"  
 Material of Crank shaft S.M. Steel Identification Mark on Do. 6509N. R.L.A. 13.7.23  
 Material of Thrust shaft S.M. Steel Identification Mark on Do. 6509N. R.L.A. 19.4.23  
 Material of Tunnel shafts S.M. Steel Identification Marks on Do. 6509N. R.L.A. 7.6.23  
 Material of Screw shafts S.M. Steel Identification Marks on Do. 6509N. R.L.A. 16.5.23 1.6.23  
 Material of Steam Pipes Solid-drawn Copper Test pressure 360 lbs/sq in Date of Test 17<sup>th</sup> January 1924  
 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 the Rules for carrying and burning oil fuel been complied with ✓  
 Is this machinery duplicate of a previous case No If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been constructed under special survey. The materials and workmanship are sound and good. The main and auxiliary machinery have been tried out under steam with satisfactory results. The safety valves of the main boilers have been adjusted under steam. In my opinion the machinery of this vessel is eligible to have the notation + L.M.C., 1.24 C.L. in the Register Book

It is submitted that this vessel is eligible for THE RECORD. + LMC 1.24. CL

*[Handwritten signatures]*  
 27/2/24

The amount of Entry Fee ... £ 5 : - :  
 Special ... £ 82 : 3 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 30. JAN. 1924  
 When received, 15/2/24

*[Signature]*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned + L.M.C. 1.24 C.L.  
 ERIFER 8/1924  
 CERTIFICATE WRITER

FRI. FEB. 15 1924



© 2019 Lloyd's Register Foundation

Rpt. 5a.  
 Date of writing  
 No. in Sur Reg. Book.  
 40913 on  
 Master  
 Engines made  
 Boilers made  
 Nominal Hor  
 MULTIT  
 Manufacture  
 Total Heat  
 No. and De  
 Tested by h  
 Area of Fir  
 Area of eac  
 In case of d  
 Smallest di  
 Smallest di  
 Largest int  
 Thickness  
 Long. seams  
 Percentage  
 Percentage  
 Thickness  
 Material  
 Length of  
 Dimension  
 End plate  
 How are  
 Tube plat  
 Mean pitc  
 Ridges to  
 t centre  
 n each  
 Consile st  
 itch of s  
 Working  
 Thickness  
 itch of  
 Working  
 diameter  
 Working  
 diameter