

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 19 *25 JUL 1942* When handed in at Local Office 19 *27 JUL 1942* Port of *NEWCASTLE-ON-TYNE*  
 No. in Survey held at *Wallsend* Date, First Survey *Nov. 25<sup>th</sup> 1941* Last Survey *July 7<sup>th</sup> 1942*  
 Reg. Book. *6472* on the *SS "EMPIRE HAZLITT"* (Number of Visits *41*) Tons { Gross *7036*  
 Net *4933*  
 Built at *S. Shields* By whom built *J. Readhead & Sons Ltd.* Yard No. *628* When built *1942*  
 Engines made at *Wallsend* By whom made *N.E. Marine Engls (1938) Ltd.* Engine No. *3022* When made *1942*  
 Boilers made at *"* By whom made *"* Boiler No. *3022* When made *1942*  
 Registered Horse Power Owners *Ministry of War Transport* Port belonging to *S. Shields*  
 Nom. Horse Power as per Rule *510* Is Refrigerating Machinery fitted for cargo purposes ☒ Is Electric Light fitted *yes*  
 Trade for which Vessel is intended *ocean going*

ENGINES, &c.—Description of Engines *Triple Expansion* Revs. per minute *76*  
 Dia. of Cylinders *24½ - 39 - 70* Length of Stroke *48* No. of Cylinders *3* No. of Cranks *3*  
 Crank shaft, dia. of journals as per Rule *13.98* Crank pin dia. *14¾* Crank webs Mid. length breadth *22"* Thickness parallel to axis *9"*  
 as fitted *14¼* Mid. length thickness *9"* Thickness around eye-hole *6¾"*  
 Intermediate Shafts, diameter as per Rule *13.32* Thrust shaft, diameter at collars as per Rule *13.98*  
 as fitted *13¾"* as fitted *14¼"*  
 Tube Shafts, diameter as per Rule *14.84* Screw Shaft, diameter as per Rule *15¼"* Is the *tube* shaft fitted with a continuous liner *yes*  
 as fitted *yes* as fitted *yes*  
 Bronze Liners, thickness in way of bushes as per Rule *.753* Thickness between bushes as per Rule *.565* Is the after end of the liner made watertight in the  
 as fitted *.81* as fitted *.65* propeller boss *yes* If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ☒  
 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 Oil Gland or other appliance fitted at the after end of the tube ☒  
 shaft *no* If so, state type *oil gland* Length of Bearing in Stern Bush next to and supporting propeller *5'-1"*  
 Propeller, dia. *17-10½* Pitch *15-6* No. of Blades *4* Material *C 1.* whether Moveable *no* Total Developed Surface *114¾* sq. feet  
 Feed Pumps worked from the Main Engines, No. *2* Diameter *4* Stroke *27"* Can one be overhauled while the other is at work ☒  
 Bilge Pumps worked from the Main Engines, No. *2* Diameter *4* Stroke *27"* Can one be overhauled while the other is at work *yes*  
 Feed Pumps { No. and size *2 @ 7½ x 9½ x 21"* *1 @ 9½ x 7½ x 21"* Pumps connected to the { No. and size *1 @ 10½ x 13 x 24"* *1 @ 9½ x 7½ x 21"* *2 @ 4" x 27"*  
 How driven *Steam* Main Bilge Line How driven *Steam* *M. Eng.*  
 Ballast Pumps, No. and size *1 @ 10½ x 13 x 24* Lubricating Oil Pumps, including Spare Pump, No. and size *1*  
 Are two independent means arranged for circulating water through the Oil Cooler ☒ Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room *2 @ 3" Eng Room.* *2 @ 3" Boiler Room* *2 @ 2½" dry tank*  
 In Pump Room *yes* In Holds, &c. *3" 7½" in each hold.*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *1 @ 9"* Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size *1 @ 5"* 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 Sea Connections fitted direct on the skin of the ship *yes* Are they fitted with 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 Overboard Discharges 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*  
 That Pipes pass through the bunkers *forward Suctions* How are they protected *lumber boards*  
 That pipes pass through the deep tanks ☒ Have they been tested as per Rule ☒  
 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 Shaft Tunnel watertight *yes* Is it fitted with a watertight door *no* worked from ☒

MAIN BOILERS, &c.—(Letter for record *S*) Total Heating Surface of Boilers *7248* *sq. ft.*  
 Are the Boilers fitted with Forced Draft *yes* Which Boilers are fitted with Superheaters *none*  
 No. and Description of Boilers *3 SB.* Working Pressure *220 lbs.*  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? *yes*  
 IS A DONKEY BOILER FITTED? *no* If so, is a report now forwarded? ☒  
 Can the donkey boiler be used for domestic purposes only ☒  
 PLANS. Are approved plans forwarded herewith for Shafting *B. Class.* Main Boilers *30.4.41* Auxiliary Boilers ☒ Donkey Boilers ☒  
 (If not state date of approval)  
 Superheaters ☒ General Pumping Arrangements *7.10.41* Oil fuel Burning Piping Arrangements ☒

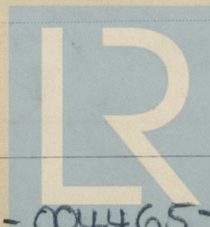
## SPARE GEAR.

Is the spare gear required by the Rules been supplied *yes*  
 Is the principal additional spare gear supplied ☒

The foregoing is a correct description. (1933) LTD.

*John Neill*  
 DIRECTOR

Manufacturer.



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1941. Nov. 25. 26. Dec. 2. 4. 12. 17. 24. 1942. Jan. 5. 7. 12. 22. 28. Feb. 4. 5. 12. 16. 17. 18. 19. 20. 23. 24. 26. 27.  
 During progress of work in shops -- Mar. 13. 17. 25. 30. Apr. 17. 24. 28. May 8. 12. 14. 22. 27. 28. 29. June. 3. 4. July. 7.  
 Dates of Survey while building During erection on board vessel --  
 Total No. of visits 41

Dates of Examination of principal parts—Cylinders 28.1.42. Slides 25.3.42 Covers 28.1.42

Pistons 25.3.42 Piston Rods 25.3.42 Connecting rods 25.3.42

Crank shaft 5.2.42 Thrust shaft 5.1.42 Intermediate shafts 22.1.42

Tube shaft ✓ Screw shaft 14.5.42 Propeller 12.5.42

Stern tube 24.4.42. 7.5.42 Engine and boiler seatings 28.5.42 Engines holding down bolts 28.5.42

Completion of fitting sea connections 12.5.42.

Completion of pumping arrangements Boilers fixed 28.5.42. Engines tried under steam 27.4.42

Main boiler safety valves adjusted 3.6.42. Thickness of adjusting washers P. 3 7/16" C 5 3/8" S 5 3/8" 7 23/64" 7 1/2" JD

Crank shaft material Steel Identification Mark Ref 5.2.42 Thrust shaft material Steel Identification Mark Ref 5.1.42

Intermediate shafts, material Steel Identification Marks Ref 22.1.42 Tube shaft, material ✓ Identification Mark

Screw shaft, material Steel Identification Mark Ref 14.5.42 Steam Pipes, material Steel Test pressure 660 Various 16.2.42 to 29.5.42

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 the use of oil as fuel been complied with ✓

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo no. If so, have the requirements of the Rules been complied with ✓

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with no.

Is this machinery duplicate of a previous case yeb. If so, state name of vessel Empire Story Nov. 100255.

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been made & installed under Special Survey in accordance with the Approved Plans, the Specification and the Requirements of the Rules. The materials & workmanship are good.

The Machinery proved satisfactory under working conditions alongside quay & is eligible in my opinion to have the Records. + L.M.C. 7.42  
 3 S.B. F.D. C.L.

The amount of Entry Fee ... £ 6 : 0 : 0 When applied for, 24 JUL 1942  
 Special + 25% ... £ 125 : 12 : 6  
 Donkey Boiler Fee ... £ : : When received,  
 Travelling Expenses (if any) £ : : 19

Committee's Minute 31 JUL 1942

Assigned

+ L.M.C. 7.42  
 72. Ch

Rocky

Engineer Surveyor to Lloyd's Register of Shipping.



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