

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 8 OCT 1941

Date of writing Report 10 When handed in at Local Office 4/10/1941 Port of **Newcastle-on-Tyne**  
 No. in Survey held at **Wallsend.** Date, First Survey 24 March Last Survey 30<sup>th</sup> Sept 1941  
 Reg. Book. 36274 on the **S.S. "EMPIRE WYCLIF"** (Number of Visits 31.)  
 Built at **Sunderland.** By whom built **Short Bros Ltd.** Yard No. 467 When built 1941  
 Engines made at **Wallsend.** By whom made **N.E. Marine Eng Co (1938) Ltd.** No. 3006 When made 1941  
 Boilers made at " By whom made " Boiler No. 3006 When made 1941  
 Registered Horse Power Owners **Ministry of War Transport.** Port belonging to **Sunderland**  
 Nom. Horse Power as per Rule 431 Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **yes.**  
 Trade for which Vessel is intended **Ocean going.**

**ENGINES, &c.**—Description of Engines **Triple Expansion** Revs. per minute 68  
 Dia. of Cylinders 24.39.68 Length of Stroke 48 No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 13.78 as fitted 14" Crank pin dia. 14" Crank webs Mid. length breadth 2 3/4" Thickness parallel to axis 8 3/4, 9 1/2 MP  
 Intermediate Shafts, diameter as per Rule 13.13 as fitted 13 1/4" Thrust shaft, diameter at collars as per Rule 13.78 as fitted 14"  
 Tube Shafts, diameter as per Rule 14.67 as fitted 15" Is the shaft fitted with a continuous liner **yes**  
 Bronze Liners, thickness in way of bushes as per Rule .747 as fitted 3/4" Thickness between bushes as per Rule .56 as fitted 2/32" 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 junctions made by fusion through the whole thickness of the liner **yes**  
 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 **yes**  
 If two liners are fitted, is the shaft lapped or protected between the liners **yes** Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft **no**  
 Propeller, dia. 18'-3" Pitch 17'-0" No. of Blades 4 Material **CI.** whether Moveable **no** Total Developed Surface 124 3/4 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 26 Can one be overhauled while the other is at work **yes**  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 26 Can one be overhauled while the other is at work **yes**  
 Feed Pumps No. and size 2 @ 7 x 9 1/2 x 21" 1 @ 8 x 5 3/4 x 9" Pumps connected to the Main Bilge Line No. and size 1 @ 8 x 5 3/4 x 9" 1 @ 9 x 11 x 10" 7 @ 4 1/2 x 26  
 How driven **Steam** How driven **Steam** M. Eng  
 Ballast Pumps, No. and size 1 @ 9 x 11 x 10" Lubricating Oil Pumps, including Spare Pump, No. and size **yes**  
 Are two independent means arranged for circulating water through the Oil Cooler **yes** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 2 @ 3" Port 1 @ 3" Starb.  
 In Pump Room **yes** In Holds, &c. For 3" P+S F. Main 3 1/2" P+S. Cross Bunker 2 1/2" P+S.  
**A. Main 3" P+S aft hold 3" P+S aft well 3"**  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 8" 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 **half condensers above**  
 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**  
 What Pipes pass through the bunkers **forward Suctions** How are they protected **lumber boards.**  
 What pipes pass through the deep tanks Have they been tested as per Rule **yes**  
 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 **yes**

**MAIN BOILERS, &c.**—(Letter for record **S.**) Total Heating Surface of Boilers 5730 sq. ft.  
 Which Boilers are fitted with Forced Draft **yes.** Which Boilers are fitted with Superheaters **none!**  
 No. and Description of Boilers **RSB.** Working Pressure 220 lbs.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? **yes**  
 IS A DONKEY BOILER FITTED? **yes** If so, is a report now forwarded? **yes**  
 Can the donkey boiler be used for domestic purposes only **yes**  
**PLANS.** Are approved plans forwarded herewith for Shafting 12.7.40 Main Boilers 21.5.41 Auxiliary Boilers **yes** Donkey Boilers **yes**  
 Superheaters **yes** General Pumping Arrangements 11.2.41 Oil fuel Burning Piping Arrangements **yes**

### SPARE GEAR.

Has the spare gear required by the Rules been supplied **yes.**  
 State the principal additional spare gear supplied **1 CI propeller. 2 half bottom end bearings & 2 half top end bearings with bolts & nuts. 2 main bearing bolts & nuts. 6 coupling bolts & nuts. 1 Set rings for HP piston. 1 Set wearing parts for 1 piston rod packing. 1 Set of pads for thrust. Spares as required for HP & MP poppet valves, auxiliaries & sundries as per attached list**

The foregoing is a correct description.  
 THE NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.

*John Neill*  
 DIRECTOR

Manufacturer.



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04426-004431-0068

If not, state whether, and when, one will be sent

50-938. T. (MADE IN ENGLAND.)

1941  
 Mar. 24-31. Apr. 7. June 10. 11. 25. July 4. 10. 11. 22. 24. 25. 29. Aug. 5. 7. 13. 18. 22.

During progress of work in shops - - 26. 27. 29. Sep. 1. 2. 5. 8. 10. 11. 16. 17. 25. 30.

Dates of Survey while building

During erection on board vessel - - -

Total No. of visits 31.

Dates of Examination of principal parts—Cylinders	12. 8. 41	Slides	18. 8. 41	Covers	12. 8. 41
Pistons	22. 8. 41	Piston Rods	22. 8. 41	Connecting rods	22. 8. 41
Crank shaft	22. 7. 41	Thrust shaft	22. 7. 41	Intermediate shafts	29. 8. 41
Tube shaft	✓	Screw shaft	29. 8. 41	Propeller	29. 8. 41
Stern tube	18. 7. 41	Engine and boiler seatings	11. 9. 41	Engines holding down bolts	11. 9. 41
Completion of fitting sea connections	24. 7. 41				
Completion of pumping arrangements	17. 9. 41	Boilers fixed	11. 9. 41	Engines tried under steam	16. 17/9/41 30/9/41
Main boiler safety valves adjusted	16. 9. 41 25. 9. 41	Thickness of adjusting washers	P 7/8" + 7/16" S 7/16" 13/32"		420. T.T.
Crank shaft material	Steel	Identification Mark	3006 Roll 22. 7. 41	Thrust shaft material	Steel
Intermediate shafts, material	Steel	Identification Marks	3006 Roll 29. 8. 41	Tube shaft, material	✓
Screw shaft, material	Steel	Identification Mark	3006 Roll 29. 8. 41	Steam Pipes, material	Steel
Is an installation fitted for burning oil fuel	✓	Is the flash point of the oil to be used over 150°F.	✓	Test pressure	660 lbs. Date of Test 8. 9. 41

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 ✓ 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 ✓  
 Is this machinery duplicate of a previous case yes. If so, state name of vessel Empire Burton

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been made & installed under Special Survey in accordance with the approved Plans, the Requirements of the Rules & the Specification. The materials & workmanship are good. The machinery proved satisfactory under working conditions at quay & is eligible in my opinion to have the Records. + LMC 9. 41 2SB F.D. CL.

Certificate to be sent to NEWCASTLE-ON-TYNE

The amount of Entry Fee ...	£ 5. 0. 0.	When applied for,	7 OCT 1941
Special ...	£ 112. 1. 0.	When received,	19.
Donkey Boiler Fee ...	£ : :		
Travelling Expenses (if any) £	: :		19.

*Re Moffitt*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 17 OCT 1941**

Assigned *F. D. M. 9. 41*  
*3D, CL.*

