

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 14 APR 1928

Date of writing Report 5 April 1928 When handed in at Local Office 6/4/1928 Port of **NEWCASTLE-ON-TYNE**

No. in Survey held at **Walker on Tyne** Date, First Survey 16 Nov 1927 Last Survey 3 April 1928
 Reg. Book. on the **Single Screw, Steel Steamer "ALNWICK"** (Number of Visits 42)

Built at **Walker on Tyne** By whom built **Swan Hunter & Richardson Ltd** Yard No. **1268** Tons { Gross 1383 Net 592 }
 Engines made at **Walker on Tyne** By whom made **S-H W-R Ltd** Engine No. **1268** when made **1928-4**
 Boilers made at **Walker on Tyne** By whom made **S H W R Ltd** Boiler No. **1268** when made **1928-4**

Registered Horse Power Owners **Tyne Tees Steam Shipping Co Ltd** Port belonging to **Newcastle**
 Nom. Horse Power as per Rule **392** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**

Trade for which Vessel is intended **Coasting, Passenger and general Cargo**

ENGINES, &c.—Description of Engines **Triple Expansion** Revs. per minute **84**

Dia. of Cylinders **20 3/4 35 1/2 60** Length of Stroke **45** No. of Cylinders **3** No. of Cranks **3**

Crank shaft, dia. of journals as per Rule **12.2** as fitted **12 5/8** Crank pin dia. **12 5/8** Crank webs Mid. length breadth **18** Thickness parallel to axis **7 7/8**
 as fitted **12 5/8** Crank webs Mid. length thickness **1 7/8** shrunk Thickness around eye-hole **5 9/16**

Intermediate Shafts, diameter as per Rule **11.61** as fitted **12** Thrust shaft, diameter at collars as per Rule **12.2** as fitted **12 5/8**

Tube Shafts, diameter as per Rule **12.84** as fitted **13 3/8** Is the **screw** shaft fitted with a continuous liner **Yes**

Bronze Liners, thickness in way of bushes as per Rule **.69** as fitted **23/32** Thickness between bushes as per Rule **.518** 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** Length of Bearing in Stern Bush next to and supporting propeller **4' 5 1/2"**

Propeller, dia. **14.9** Pitch **17.6** No. of Blades **4** Material **Cast Iron** whether Moveable **No** Total Developed Surface **70.9** sq. feet

Feed Pumps worked from the Main Engines, No. **2** Diameter **3 1/4** Stroke **22 1/2** Can one be overhauled while the other is at work **Yes**

Bilge Pumps worked from the Main Engines, No. **2** Diameter **3 3/4** Stroke **22 1/2** Can one be overhauled while the other is at work **Yes**

Feed Pumps { No. and size **1 pair twin 9 1/2 x 7 1/2 x 21** Pumps connected to the Main Bilge Line { No. and size **Ballast pumps 3 1/2 Suction & Service pump 3 1/2 Suction**
 How driven **Steam** How driven **Steam** (Engine driven pump 2 1/3 Steam

Ballast Pumps, No. and size **1 Duplex 9 x 10 x 10** Lubricating Oil Pumps, including Spare Pump, No. and size

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 **Engine Room 3 of 3 1/2**

In Holds, &c. **Forward Hold 4 of 2 1/2** **Aft Hold 2 of 2 1/2** **Tunnel well 1 of 2 1/2**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **1 of 7** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **1 of 3 1/2** Are all the Bilge Suction Pipes in holds and tunnel well fitted with strainer-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 stowhold plates **Yes** Are the Overboard Discharges above or below the deep water line **above**

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 **Hold Suction pipes** How are they protected **Wood casing**

What pipes pass through the deep tanks **Yes** 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 **Yes** worked from **top platform above load line**

MAIN BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **5864 sq ft**

Is Forced Draft fitted **Yes** No. and Description of Boilers **2 S E Cyl multibubular** Working Pressure **215 lb**

IS A REPORT ON MAIN BOILERS NOW FORWARDED? **Yes**

IS A DONKEY BOILER FITTED? **No** If so, is a report now forwarded? **No**

PLANS. Are approved plans forwarded herewith for Shafting **No** Main Boilers **Yes** Auxiliary Boilers **None** Donkey Boilers **None**

Superheaters **None** General Pumping Arrangements **Yes** Oil fuel Burning Piping Arrangements **None**

SPARE GEAR. State the articles supplied:—**2 main Bearing bolts and nuts 2 top end bolts and nuts. 2 Bottom end bolts and nuts. 1 set of Coupling Bolts and nuts. 1 spare propeller Cast Iron, 2 check valves. 1 set of Feed pump valves and seats 1 set of Bilge pump valves and seats 1 pair of bottom end hamms and bolts nuts 1 set of Rod Guards 1/3 set of valves 1 eccentric strap complete 1 set of feed donkey pump valves seats 1 set of Ballast Donkey Pump valves and seats. 1 set of general service pump valves seats 1 set of fresh water pump valves seats 1 Impeller + Shaft for circulating pump one spare tail shaft (c.w.) 2 springs for safety valves 1 spring each side of escape valve a few spare tubes and ferrules for condenser Assorted Iron, bolts and nuts, Various Engine Room Stores and Tools.**

The foregoing is a correct description,
 SWAN, HUNTER & WIGHAM RICHARDSON, LTD.
 J. Wigham
 DIRECTOR

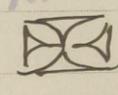
Manufacturer.



Dates of Survey while building } During progress of work in shops -- } 1927. NOV. 16. DEC. 5. 6. 8. 20. 29. 1928. JAN. 6. 9. 10. 12. 18. 19. 23. 25. 26. 27. 30. 31. FEB. 1. 2. 6. 8. 9. 10. 15. 17. 20. 28.
 } During erection on board vessel -- }

Total No. of visits 42
 H₂ Cyl tested 2706 MP. 100 lb L₂ Cyl 40 lb
 5. 1. 28. 5. 1. 28.
 Dates of Examination of principal parts—Cylinders 5 July 28 Slides December 27 Covers 5 July 28
 Pistons 5. 1. 28. Piston Rods 5. 1. 28 Connecting rods 8 Dec 27
 Crank shaft 8 Dec 27 Thrust shaft March 28 Intermediate shafts 8 Dec 27
 Tube shaft ✓ Screw shaft 5 July 28 5. 12 28 Propeller 10. 2. 28 5. 3. 28
 Stern tube 24. 1. 28 30. 1. 28 Engine and boiler seatings 5. 3. 28 Engines holding down bolts 15 3. 28
 Completion of fitting sea connections 30. 1. 28 5. 3. 28
 Completion of pumping arrangements 2 April 28 Boilers fixed 15. 3. 28, 22. 3. 28 Engines tried under steam 2 April 28
 Main boiler safety valves adjusted 2 April 28 Thickness of adjusting washers P.B. 3/8. S.B. 3/8
 Crank shaft material Steel Identification Mark LLO7AS. LGS Thrust shaft material Steel Identification Mark LR. 5651.D
 Intermediate shafts, material Steel Identification Marks LGS, MR Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material Steel Identification Mark LR5651.D Steam Pipes, material Steel Test pressure 645 lb Date of Test 2. 2. 28
 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 built under special survey the material and workmanship found good and efficient
 The machinery satisfactorily fitted up on board the vessel. Tried under working conditions (ventilator moorings) and found satisfactory.
 In my opinion this vessel is now eligible for the notation of + L M C 4. 28 (IN-REG) to be made in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.  L.M.C 4.28 C.L. FD.

[Handwritten signatures and dates]
 16-4-28

NEWCASTLE-ON-TYNE.

Certificate to be sent to
 The Surveyors are requested not to write on or below the space for Committee's Minute(s)

The amount of Entry Fee ...	£ 5 : 0	When applied for,	11. 4. 19 28
Special ...	£ 83 : 16		
Donkey Boiler Fee ...	£ :	When received,	13. 4. 19 28
Travelling Expenses (if any) £	:		

L. G. Skilleross
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **TUES. 17 APR 1928**
 Assigned **+ L.M.C 4.28**
P.D. Cl.

CERTIFICATE WRITTEN