

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

Received at London Office

12 MAY 1926

NEWCASTLE-ON-TYNE

Date of writing Report

10

When handed in at Local Office

5/5/1026 Port of

No. in Survey held at **WALKER**
Reg. Book.

Date, First Survey **27/8/25** Last Survey **27/4/1926**

(Number of Visits **71**)

on the **Steel Screw Steamer, NORTHLAND**

Tons Gross **3445**

Net **2029**

Built at **Walker on Tyne** By whom built **Swan Hunter & Wigham Richardson Ltd** Yard No. **1214**

When built **1926. 4**

Engines made at **WALKER** By whom made **S. Hunter & Wigham Richardson Ltd** Engine No. **1214**

when made **1926. 4**

Boilers made at **WALKER** By whom made **S. Hunter & Wigham Richardson Ltd** Boiler No. **1214**

when made **1926. 4**

Registered Horse Power _____ Owners _____ Port belonging to **Quebec**

Nom. Horse Power as per Rule **393** Is Refrigerating Machinery fitted for cargo purposes **yes** Is Electric Light fitted **yes**

Trade for which Vessel is intended **Ocean going**

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

Dia. of Cylinders **23½. 38. 62** Length of Stroke **42** No. of Cylinders **3** No. of Cranks **3**

Crank shaft, dia. of journals as per Rule **12.04** Crank pin dia. **12½** Crank webs Mid. length breadth **18½** Thickness parallel to axis **7½**

as fitted **12½** Mid. length thickness **7½** Thickness around eye-hole **5½**

Intermediate Shafts, diameter as per Rule **11.47** Thrust shaft, diameter at collars as per Rule **12.04**

as fitted **11½** as fitted **12¼ & 12½ at ends**

Tube Shafts, diameter as per Rule _____ Screw Shaft, diameter as per Rule **13.31** Is the shaft fitted with a continuous liner **yes**

as fitted _____ as fitted **13.31**

Bronze Liners, thickness in way of bushes as per Rule **705** Thickness between bushes as per Rule **5.27** Is the after end of the liner made watertight in the propeller boss **yes**

as fitted **3¼ (C.L.)** as fitted **11**

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **In one length**

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 _____

Length of Bearing in Stern Bush next to and supporting propeller **4' 5½" diameter**

Propeller, dia. **14' 6"** Pitch **13' 10"** No. of Blades **4. RH** Material **Cast Steel** whether Moveable **yes** Total Developed Surface **68** sq. feet

Feed Pumps worked from the Main Engines, No. **2** Diameter **3½** Stroke **22** Can one be overhauled while the other is at work **yes**

Bilge Pumps worked from the Main Engines, No. **2** Diameter **3½** Stroke **22** Can one be overhauled while the other is at work **yes**

Feed Pumps connected to the _____ No. and size **one 8x6x8 / one 6x5x8** No. and size **one 8x9x8. one 12x8. 21. one 4x2**

How driven **Steam** Main Bilge Line How driven **Steam, Clean, Electric**

Ballast Pumps, No. and size **8x9x8** Lubricating Oil Pumps, including Spare Pump, No. and size _____

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 of 3" Port 2 of 3" Starboard**

In Holds, &c. **no 1 hold. 2 of 3" no 2 hold. 2 of 2½" no 3 hold. 2 of 2½"** Tunnel well, one **2½"**

MAIN WATER CIRCULATING PUMP DIRECT BILGE SUCTIONS, No. and size **8" one** **INDEPENDENT POWER PUMP DIRECT SUCTIONS to the Engine Room Bilges, No. and size** **2 of 4"**

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 **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 are carried through the bunkers **bilge pipes** How are they protected **wood covering**

What pipes pass through the deep tanks **none** 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 **yes** worked from **top platform**

MAIN BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **6195** **sq**

Is Forced Draft fitted **yes** No. and Description of Boilers **3. S.E. Cyl. multitubular** Working Pressure **180 lb**

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 **no** Main Boilers **yes** Auxiliary Boilers **none** Donkey Boilers **none**

Superheaters **none** General Pumping Arrangements **yes** Oil fuel Burning Piping Arrangements **yes**

SPARE GEAR. State the articles supplied:— **Two top end bolts and nuts, two bottom end bolts and nuts**

Spare Coupling bolts and nuts, 2 main bearing bolts and nuts, set of feed and Bilge pumps

Wires, set of piston rings, spare Tail End Shaft (C.L.) 2 spare propeller blades,

50 condenser tubes, 1 set air pump valves, 12 studs & nuts for propeller, 6 each aft cover & valve chest cover

studs & nuts, flat & round bars of iron, assorted. 6 plain boiler tubes, 12 flange ring bolts, 1 air pump rod

nuts, 1 escape valve spring of each size, 1 circ. pump impeller, 1 set crank pin bushes, 2 sets water gauge

glasses, 3 safety valve springs, ½ total No of firebars, 36 zinc plates for boilers.

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

E. J. Dewey, Manufacturer.



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Lloyd's Register Foundation

002374-002384-0113

Dates of Survey while building

During progress of work in shops -- 1925 Aug 27, 31. Sep. 1, 11, 18, 21, 29, 30. Oct. 7, 13, 14, 20, 21, 22, 23, 26, 27. Nov. 2, 4, 11, 13, 19. Dec. 2, 3, 4, 7, 11, 15, 18, 28, 31. 1926 Jan. 6, 7, 8, 12, 13, 22, 26, 27, 28, 29. Feb. 2, 3, 5, 15, 16, 17, 18, 19, 24, 26. Mar. 1, 2, 3, 8, 9, 15, 17, 19, 22, 23, 26. Apr. 1, 9, 16, 20, 22, 23, 26, 27.

During erection on board vessel ---

Total No. of visits 71.

LDCYL tested 40lb MPCYL 100lb/4/13/25. HPCYL 225lb

Dates of Examination of principal parts—Cylinders 20.10.25 30. Slides 4.12.25, 21.12.25 Covers 4.12.25

Pistons 4.12.25 8.1.26 Piston Rods 4.12.25 8.1.26 Connecting rods 4.12.25 8.1.26

Crank shaft 13.10.25 4.12.25 Thrust shaft 30.9.25 23.10.25 Intermediate shafts 30.9.25 13.11.25

Tube shaft Screw shaft 30.9.25 13.10.25 Propeller 22.10.25, 28/1/26

Stern tube 23.10.25, 23.10.25 Engine and boiler seatings 22.1.26 Engines holding down bolts 5.2.26

Completion of pumping arrangements Boilers fixed 5.2.26 Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers 2367.CRH 11.9.25 4.12.25 2246.CRH 25.9.25

Crank shaft material steel Identification Mark LLOYDS LGS Thrust shaft material steel Identification Mark LLOYDS LGS

Intermediate shafts, material steel Identification Marks LLOYDS LGS Tube shaft, material TEPIECE 500lb 13/12/25 Identification Mark

Screw shaft, material steel Identification Mark LLOYDS Steam Pipes, material steel Test pressure 600lb Date of Test 16.2.26

Is an installation fitted for burning oil fuel yes ✓ Is the flash point of the oil to be used over 150°F. yes ✓

Have the requirements of the Rules for carrying and burning oil fuel been complied with yes ✓

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Engines and Boilers 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. Vessel at Moorings and found satisfactory. Subsequently the Vessel proceeded to sea for sea trials, with satisfactory results. In my opinion the Vessel is now eligible for record of I.L.M.C. 4.26 (INRED) to be made in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 4.26. FD. CL. Fitted for oil fuel 4.26. FP above 150°F.

L. G. Shallcross
18/5/26

IN DUPLICATE Certificate to be sent to NEWCASTLE-ON-TYNE

The amount of Entry Fee ... £ 5 : - : When applied for, -3 MAY 1926

Special ... £ 83 : 19 : When received, 5/5/26

Donkey Boiler Fee ... £ : : 19

Travelling Expenses (if any) £ : : 19

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

Committee's Minute 21 MAY 1926

Assigned + L.M.C. 4:26 I.L.M.C. Fitted for Oil Fuel 4:26 I.P. Above 150°F