

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Survey Report 2nd Aug. 1935 When handed in at Local Office 2nd Aug. 1935 Port of Newcastle-on-Tyne
 Date, First Survey 28 Jan/35 Last Survey 31.7. 1935
 Survey held at Newcastle-on-Tyne (Number of Visits 77)
 Book No. 2 on the "S.S. DUMFRIES"
 Gross 5075 5143 Tons
 Net 3125 3064 Tons
 at Hebburn-on-Tyne By whom built R.W. Hawthorn, Leslie & Co. Ltd. Yard No. 595. When built 1935.
 Engines made at Wallsend-on-Tyne By whom made R. E. Marine Eng. Co. Ltd. Engine No. 2815. when made 1935.
 Boilers made at Wallsend-on-Tyne By whom made R. E. Marine Eng. Co. Ltd. Boiler No. 2815. when made 1935.
 Indicated Horse Power Owners B. J. Lutherland & Co. Ltd. Port belonging to Newcastle-on-Tyne
 Horse Power as per Rule 442 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 for which Vessel is intended

ENGINES, &c.—Description of Engines *Quadruple Expansion* Revs. per minute 58
 No. of Cylinders 4 No. of Cranks 4
 Length of Stroke 48" No. of Journals 4
 shaft, dia. of journals as per Rule 13.56" Crank pin dia. 14 1/8" Mid. length breadth 2-1" Thickness parallel to axis 8 3/4"
 as fitted 14 1/8" Crank webs Mid. length thickness 8 3/4" shrunk Thickness around eye-hole 7 1/6"
 Intermediate Shafts, diameter as per Rule 12.92" Thrust shaft, diameter at collars as per Rule 13.56"
 as fitted 13 5/8" as fitted 14 1/8"
 Shafts, diameter as per Rule 14.46" Is the shaft fitted with a continuous liner? Yes
 as fitted 15 3/4" Is the after end of the liner made watertight in the stern tube? Yes
 Liners, thickness in way of bushes as per Rule 23.7/32" Thickness between bushes as per Rule 17.78" Is the after end of the liner made watertight in the stern tube? Yes
 as fitted 3/4" as fitted 7/16"
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner? One length
 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 full length
 Liners are fitted, is the shaft lapped or protected between the liners? No 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 5'-5" Total Developed Surface 118 sq. feet
 Propeller, dia. 18'-6" Pitch No. of Blades 4 Material Bronze whether Moveable No
 Pumps worked from the Main Engines, No. None Diameter - Stroke - Can one be overhauled while the other is at work -
 Pumps worked from the Main Engines, No. Two Diameter 4 1/2" Stroke 26" Can one be overhauled while the other is at work Yes
 No. and size Two 9 1/2" x 7" x 18" Pumps connected to the Main Bilge Line No. and size One 9" x 11" x 10"
 How driven Steam How driven Steam
 Lubricating Oil Pumps, including Spare Pump, No. and size None
 independent means arranged for circulating water through the Oil Cooler - Suctions, connected to both Main Bilge Pumps and Auxiliary
 pumps;—In Engine and Boiler Room 4 @ 3" 1 @ 3" to dry tank, 1 @ 2 1/2" to Tunnel Well, and 1 @ 2" to Tunnel Drain Hat.
 Suctions, &c. N:1 Hold - 2 @ 3"; N:2 Hold - 2 @ 3"; N:3 Hold - 2 @ 2 1/2"; N:4 Hold - 2 @ 3"; N:5 Hold - 2 @ 3"

Water Circulating Pump Direct Bilge Suctions, No. and size One 9" **Independent Power Pump Direct Suctions to the Engine Room Bilges,**
 size One 5" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes? Yes
 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
Sea Connections fitted direct on the skin of the ship? Yes Are they fitted with Valves or Cocks? Yes
 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? Both
 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
 pipes pass through the bunkers? None How are they protected? -
 pipes pass through the deep tanks? No deep tank Have they been tested as per Rule? -
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times? Yes
 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 Upper deck.

BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 7395 sq. ft.
 Draft fitted No No. and Description of Boilers 3 Single Ended Working Pressure 225 lbs./sq. in.
REPORT ON MAIN BOILERS NOW FORWARDED? Yes
DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes
 Are approved plans forwarded herewith for Shafting? No Main Boilers? Yes Auxiliary Boilers? - Donkey Boilers? Yes
 (If not state date of approval)
 General Pumping Arrangements? Yes Oil fuel Burning Piping Arrangements? -

SPARE GEAR. State the articles supplied:— All as per Rule requirements and, in addition, one propeller shaft and cast iron propeller; one set of thrust pads; one set of H.P. piston rings; one set of I.P. piston rings; 2 main safety valve springs; one Superheater Safety valve spring; 56 lbs. of white metal; 2 main and one donkey boiler check valves; one eccentric rod and strap; one valve spindle; spares for poppet valve gear; Superheater grinding rings, plugs, studs, nuts and clamps; and other small items.

The foregoing is a correct description,

Blunthorpe
SECRETARY.

Manufacturer.



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Lloyd's Register Foundation

W240-0013

2/11
9/8/35

1935

During progress of work in shops - - Jan. 28. 29. 31. Feb. 1. 4. 7. 11. 12. 15. 18. 20. 21. 28. Mar. 1. 5. 6. 7. 8. 11. 12. 18. 21. 22. 27. Apr. 3. 5. 8. 9. 10. 11. 12. 15. 16. 18. 24. 25. 26. 29. May 1. 2. 6. 8. 13. 14. 17. 20. 21. 22. 23. 24. 28. 29. 30. 31. June 1. 4. 5. 6. 7. 12. 13. 14. 17. 19. 20. 24. 25. July 2. 3. 4. 5. 9. 12. 22. 31.

Dates of Survey while building During erection on board vessel - - -

Total No. of visits 77.

Dates of Examination of principal parts—Cylinders 1.5.35 Slides 1.5.35 Covers 1.5.35
 Pistons 1.5.35 Piston Rods 26.4.35 Connecting rods 26.4.35
 Crank shaft 15.4.35 Thrust shaft 26.4.35 Intermediate shafts 26.4.35
 Tube shaft - W. & S. Screw shafts 26.4.35 Propeller 23.5.35
 Stern tube 24.5.35 Engine and boiler seatings 17.6.35 Engines holding down bolts 5.7.35
 Completion of fitting sea connections 17.6.35
 Completion of pumping arrangements 9.7.35 Boilers fixed 4.7.35 Engines tried under steam 31.7.35
 Main boiler safety valves adjusted 9.7.35 Thickness of adjusting washers P 7/16 5 1/2" P 17/32 5 7/16 P 15/32 5 15/32 S 15/32
 Crank shaft material Steel Identification Mark H.C.F. 15.4.35 Thrust shaft material Steel Identification Mark H.C.F. 26.4.35
 Intermediate shafts, material Steel Identification Mark H.C.F. 26.4.35 Tube shaft, material - Identification Mark -
 W & S Screw shafts material Steel Identification Mark H.C.F. 26.4.35 Steam Pipes, material 1/2 Steel Test pressure 675 lbs Date of Test 5.7.35
 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 built under special survey in accordance with Rules and approved plans; the materials and workmanship are good. The machinery has been satisfactorily installed in the vessel, examined under working conditions and found satisfactory, and is eligible, in my opinion, for classification, and to have the record L.M.C. 7.35 - C.L. in the Register Book.

Newcastle-on-Tyne

The amount of Entry Fee ... £ 5 : 0 : 0 When applied for, *army*
 Special ... £ 91 : 6 : 0 31.7.1935
 Donkey Boiler Fee ... £ 9 : 2 : 0 When received,
 Travelling Expenses (if any) £ : : 3.8 35/100 7/8

A. B. Forster
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 13 AUG 1935
 Assigned *Adml. 7.35*