

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

26 MAY 1942

Received at London Office 28 MAY 1942

When handed in at Local Office 23/5/41 #2 Port of NEWCASTLE ON TYNE.
 Survey held at Newcastle on Tyne Date, First Survey 26 Aug. 1941 Last Survey 7th May 1942
 on the S/S "CONGONIAN." (Number of Visits 70) Tons } Gross 6082
 Net 3452
 Built at Newcastle By whom built Swan, Hunter & Wigham Richardson Yard No. 1708 When built 1942-
 Engines made at ditto By whom made ditto Engine No. 1708 When made 1942-
 Boilers made at ditto By whom made ditto Boiler No. 1708 When made 1942
 Registered Horse Power Owners United Africa Co. Port belonging to LIVERPOOL.
 Net Horse Power as per Rule 548. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended Ocean going, Carrying Petroleum in bulk

ENGINES, &c.—Description of Engines 3 Cyl. Triple Exp. Revs. per minute 72.
 of Cylinders 23 1/2 + 39 + 66 Length of Stroke 45 No. of Cylinders 3. No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 13.293 Crank pin dia. 13 3/8 Crank webs Mid. length breadth... shrunk Thickness parallel to axis... 8 3/8
 as fitted 13 3/8 Mid. length thickness... shrunk Thickness around eye-hole 6 1/2 at journals
 Intermediate Shafts, diameter as per Rule 12.66 Thrust shaft, diameter at collars as per Rule 13.293 as fitted 13 3/8
 as fitted 12 1/16 as fitted 13 3/8
 Shafts, diameter as per Rule 14.076 Screw Shaft, diameter as per Rule 14 1/8 Is the tube shaft fitted with a continuous liner Yes
 as fitted 23.4 as fitted 14 1/8 Is the screw shaft fitted with a continuous liner Yes
 Liners, thickness in way of bushes as per Rule 18/32 Thickness between bushes as per Rule 11/16 Is the after end of the liner made watertight in the
 as fitted 3/4 as fitted 11/16 Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner In one piece
 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 Close fit.
 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
No If so, state type Yes Length of Bearing in Stern Bush next to and supporting propeller 4-10"
 Propeller, dia. 17-0" Pitch None No. of Blades 4. Material Bruce (BULL'S METAL) whether Moveable No Total Developed Surface 102.5 sq. feet
 Pumps worked from the Main Engines, No. None Diameter None Stroke None Can one be overhauled while the other is at work Yes
 Pumps worked from the Main Engines, No. 2 Diameter 5 1/4" Stroke 26" Can one be overhauled while the other is at work Yes
 No. and size Two 7" x 9 1/2" x 21" Pumps connected to the Main Bilge Line No. and size Ballast Pump 10" x 12" x 12" duplex; Two 9 1/4" dia x 26";
 How driven Steam Main Bilge Line How driven 250 tons/hr each 32 tons/hr
 Main Pumps, No. and size One 10" x 12" x 12" duplex Lubricating Oil Pumps, including Spare Pumps, No. and size None Indep. Steam also Forward Hold Bilge Pump
8" x 8" x 10" duplex 100 tons/hr
 Independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary
 Pumps;—In Engine and Boiler Room 3 1/2" and 2 1/2" in only bilge wells In Holds, &c. Aft Dry Cargo Hold 2 1/2"; No 1 + 2 Cargo Holds, 2 1/2" in each;
 In No 1 Oil or Cargo Hold, 2 port + 2 star each 2 1/2" dia. For Cofferdams 1 1/2" + 1 1/2"
 Water Circulating Pump Direct Bilge Suctions, No. and size One 9 1/8" on Port side Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size One 9 1/8" on Star side 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 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
 Pipes pass through the bunkers None How are they protected Yes
 Pipes pass through the deep tanks None Have they been tested as per Rule Yes
 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 None Is it fitted with a watertight door Yes worked from None

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 8682 sq. ft.
 Draft fitted Yes, to all 3 Bhrs No. and Description of Boilers 3, S.E. Bhrs. Working Pressure 220 lbs.
All 3 Boilers are fitted with Superheaters
 A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes
 Donkey boiler intended to be used for domestic purposes only Yes

PLANES. Are approved plans forwarded herewith for Shafting 4/4/41 Main Boilers 10/4/41 Auxiliary Boilers Yes Donkey Boilers Yes
 (If not state date of approval)
 General Pumping Arrangements 26/7/41 Oil fuel Burning Piping Arrangements 23/6/41
 Pumping Arrgt in machy Space 17/6/41
SPARE GEAR.

Spare gear required by the Rules been supplied Yes
 The principal additional spare gear supplied 2 main Bearing Bolts + nuts, 6 studs + nuts for Proton Joints Rings.

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

G. J. Tweedy
 DIRECTOR. Manufacturer.



004091-004100-0171

1941
 Aug. 26. 29. Oct. 10. 22. 24. Nov. 5. 14. 19. 21. 28. Dec. 1. 3. 5. 8. 12. 16. 18. 19. 23. 24. 29. 30. 31. 1942
 Jan. 2. 13. 15. 19. 23. 27. 28. 29. 30. Feb. 2. 4. 6. 9. 13. 18. 20. 24. 26. 27. Mar. 9. 11. 17. 18. 19. 20. 24. 26. 27. 1942
 Apr. 1. 3. 7. 14. 28. May 7.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - -

Total No. of visits 70.

Dates of Examination of principal parts—Cylinders 19/1/42 Slides 30/1/42 Covers 19/1/42
 Pistons 30/1/42 Piston Rods 30/1/42 Connecting rods 30/1/42
 Crank shaft 15/1/42 Thrust shaft 28/1/42 Intermediate shaft 30/1/42
 Tube shaft none Screw shaft 19/1/42 Propeller 19/1/42 + 26/2/42
 Stern tube 30/1/42 + 2/2/42 Engine and boiler seatings 26/2/42 + 12/3/42 Engines holding down bolts 9/3/42
 Completion of fitting sea connections 26/2/42
 Completion of pumping arrangements 28/4/42 Boilers fixed 12/3/42 Engines tried under steam 14/4/42
 Main boiler safety valves adjusted 14/4/42 Thickness of adjusting washers 13/32 7/8 7/8 13/32 13/32 13/32
 Crank shaft material F.S.S. Identification Mark 10284 AW Thrust shaft material F.S.S. Identification Mark 10790
 Intermediate shaft material F.S.S. Identification Marks 10790 H.A.I. 248. Tube shaft material Identification Mark
 Screw shaft material F.S.S. Identification Mark 10790 H.A.I. 247. Steam Pipes, material S.D.S.S. Test pressure 660 lb. Date of Test 19/12/42
 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 the use of oil as fuel been complied with Yes
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Yes If so, have the requirements of the Rules been complied with Yes
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with Not required
 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 constructed under special Survey in accordance with the approved plans and the Society's Rules, and the materials and workmanship are good.
 The machinery has been efficiently fitted on board the vessel, tried under steam under working conditions at wharf, with satisfactory results and is eligible, in my opinion, for record + L.M.C. 5. 42, and the notations B.S.B. 220lb. F.D. T.S.(O.L.) Fitted for oil fuel 5. 42, F.P. above 150°F.

NEWCASTLE-ON-TYNE.
 Certificate to be sent to
 The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ 6 : - : When applied for,
 Special ... £ 102 : 8 : 1942
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ : : 19

A. Watt
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE 16 JUN 1942
 Assigned J.H. for oil fuel
 J.D. C.

