

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

MAY 20 1940

Date of writing Report 7-5-1940 When handed in at Local Office 8/5/1940 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at Willington Quay-on-Tyne Date, First Survey 16.1.40 Last Survey 25-4-1940
 Reg. Book. 16627 on the Twin Screw Steel Ferry 'Collingwood' (Number of Visits 16)
 Built at Willington Quay-on-Tyne By whom built Clelands (Successors) Ltd. Yard No. 51 Tons Gross 89.8
Net 39.06 When built 1940
 Engines made at Newbury By whom made Plenty & Son, Ltd. Engine No. 2775 When made 1940
 Boilers made at Stockton By whom made Stockton Chemical & Riley Boiler No. 6396 When made 1940
 Registered Horse Power ✓ Owners Tyne Improvement Commissioners Port belonging to North Shields
 Nom. Horse Power as per Rule 34.28 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended Ferry, for River Service.

ENGINES, &c.—Description of Engines Comp^d Surface Condensing, Twin Screw (as per London Rpt 140108219 dated 17.1.40.
 Dia. of Cylinders 8 1/2" x 17" Length of Stroke 12" No. of Cylinders 4 No. of Cranks 4 Revs. per minute 220
 Crank shaft, dia. of journals as per Rule app^d Crank pin dia. 4" Crank webs Mid. length breadth 5" Thickness parallel to axis ✓
as fitted 4" Mid. length thickness 2 1/2" shrunk Thickness around eye-hole ✓
 Intermediate Shafts, diameter as per Rule app^d Thrust shaft, diameter at collars as per Rule app^d
as fitted 3 9/16" as fitted 3 1/4"
 Tube Shafts, diameter as per Rule ✓ Screw Shaft, diameter as per Rule app^d Is the tube shaft fitted with a continuous liner No
as fitted ✓ as fitted 4 1/8" screw
 Bronze Liners, thickness in way of bushes as per Rule ✓ Thickness between bushes as per Rule ✓ Is the after end of the liner made watertight in the
as fitted ✓ as fitted ✓ propeller boss ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓
 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 Yes If so, state type United States Length of Bearing in Stern Bush next to and supporting propeller 1'-6"
 Propeller, dia. 4'-6" Pitch 5'-6" No. of Blades 3 Material C.I. whether Moveable No Total Developed Surface 6.35 sq. feet
 Feed Pumps worked from the Main Engines, No. None Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓
 Bilge Pumps worked from the Main Engines, No. None Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓
 Feed Pumps { No. and size 2 x 3 1/2" x 2 1/2" x 4" duplex + 1 x 3" x 3 1/2" x 4" simplex. Pumps connected to the { No. and size 2 x 5" x 5" x 6" + 3 1/2" x 2 1/2" x 4"
 { How driven Duplex, Steam. Main Bilge Line { How driven Duplex, Steam.
 Ballast Pumps, No. and size 1 x 5" x 5" x 6" 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 x 2"
 In Pump Room ✓ In Holds, &c. 2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 2 3/4" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1-2" + Bilge ejector 2" 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 pass through the bunkers None How are they protected ✓
 What pipes pass through the deep tanks ✓ 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 ✓ Is it fitted with a watertight door ✓ worked from ✓

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 890 sq. ft.
 Is Forced Draft fitted No No. and Description of Boilers One, Single Ended. Working Pressure 130 lbs.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? ✓
 Is the donkey boiler intended to be used for domestic purposes only ✓

PLANS. Are approved plans forwarded herewith for Shafting ✓ Main Boilers 31.5.39 Auxiliary Boilers ✓ Donkey Boilers ✓
 (If not state date of approval)
 Superheaters ✓ General Pumping Arrangements 27-9-39 Oil fuel Burning Piping Arrangements ✓

SPARE GEAR.
 Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied. 2, spare propellers, 1 RH + 1 LH.
2 Intermediate stop valves.

The foregoing is a correct description,

Manufacturer.



006467-006411-0048

During progress of work in shops - -
 Dates of Survey while building
 During erection on board vessel - - -
 Total No. of visits

16/1/40, 19/1, 30/1, 1/2, 5/2, 9/2, 29/2, 15/3, 27/3, 1/4, 4/4, 10/4
 15/4, 16/4, 24/4, 25/4/40
 16.

Dates of Examination of principal parts—Cylinders Slides Covers
 Pistons Piston Rods Connecting rods
 Crank shaft Thrust shaft Intermediate shafts 16.1.40
 Tube shaft 16.1.40 Screw shaft 16.1.40 Propeller 16.1.40
 Stern tube 16.1.40 Engine and boiler seatings 16.1.40 Engines holding down bolts 27-3-40
 Completion of fitting sea connections 19-1-40
 Completion of pumping arrangements 4-4-40 Boilers fixed 29-2-40 Engines tried under steam 25-4-40
 Main boiler safety valves adjusted 24-4-40 Thickness of adjusting washers P. S. 3/8"
 Crank shaft material Identification Mark Thrust shaft material Identification Mark
 Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark
 Screw shaft, material Identification Mark Steam Pipes, material Bopper Test pressure 260 lbs. Date of Test 27-3-40
 Is an installation fitted for burning oil fuel Is the flash point of the oil to be used over 150°F.
 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. *This machinery has now been satisfactorily installed aboard the vessel & examined under full working conditions with satisfactory results & is eligible in my opinion to be classed with notations +L.M.C. 4.40. I.S.B. 130 lbs. (3 C.F.) T.S. 0.9.*

The amount of Entry Fee ... £ : :
 Special ... £ 3 : 2 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 17 MAY 1940
 When received, 4/6/ 1940 R.S. 6/6

G. J. Hurrell
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned + L.M.C. 4.40
 O.G.



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