

Rpt. 4.

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 5/12/51 When handed in at Local Office 5/12/51 Port of London
 No. in Survey held at Belford Date, First Survey 3/7/51 Last Survey 23/11/51
 Reg. Book Belford (Number of Visits 8)
 on the Rtd. M.V. "CLUTHA RIVER" Tons (Gross 12328 Net 7197)
 Built at Newcastle By whom built Hawthorn Leslie & Co., Ltd. Yard No. 4098 When built 1951
 Engines made at BEDFORD By whom made W.H. ALLEN, SONS & CO. LTD Engine No. R2/32028 When made 1951
 Boilers made at - By whom made - Boiler No. - When made -
 Registered Horse Power 4.18 Owners BRITISH EMPIRE STEAM NAV. CO. LD. Port belonging to LONDON

Nom. Horse Power as per Rule - Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -
 Trade for which vessel is intended -

ENGINES, &c. Description of Engines 2 - 10" & 15" X 6 1/2" STROKE ENGINE DRIVING 75 K.W. DYNAMO Revs. per minute 500
 Dia. of Cylinders 10" H.P. & 15" L.P. Length of Stroke 6 1/2" No. of Cylinders 2 No. of Cranks 2
 Crank shaft, dia. of journals as per Rule -2.0 Crank pin dia. 3.5 - 3.0 Crank webs Mid. length breadth 5.5 Thickness parallel to axis shrunk
as fitted 3.75 - 3.0 Mid. length thickness 2.375 Thickness around eye-hole 2.125
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule
as fitted as fitted

Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner -
as fitted as fitted
 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
at If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. - Pitch - No. of Blades - Material - whether Moveable - Total Developed Surface - sq. feet
 Feed Pumps worked from the Main Engines, No. - Diameter - Stroke - Can one be overhauled while the other is at work -
 Bilge Pumps worked from the Main Engines, No. - Diameter - Stroke - Can one be overhauled while the other is at work -
 Feed Pumps No. and size Pumps connected to the Main Bilge Line No. and size
How driven How driven
 Ballast Pumps, No. and size - Lubricating Oil Pumps, including Spare Pump, No. and size -
 Are two independent means arranged for circulating water through the Oil Cooler - Suctions, connected both to Main Bilge Pumps and Auxiliary
 Bilge Pumps:—In Engine and Boiler Room -
 Pump Room - In Holds, &c. -

Main Water Circulating Pump Direct Bilge Suctions, No. and size - Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges,
and size Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes -
 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 -
 Are all Sea Connections fitted direct on the skin of the ship - Are they fitted with Valves or Cocks -
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates - Are the Overboard Discharges above or below the deep water line -
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel - Are the Blow Off Cocks fitted with a spigot and brass covering plate -
 Are pipes pass through the bunkers - How are they protected -
 Are 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 -
 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 - Is the Shaft Tunnel watertight - Is it fitted with a watertight door - worked from -

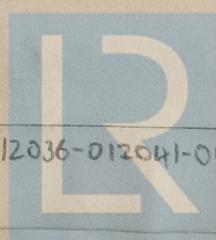
CLUTCH BOILERS, &c.—(Letter for record -) Total Heating Surface of Boilers -
 Which Boilers are fitted with Forced Draft - Which Boilers are fitted with Superheaters -
 and Description of Boilers - Working Pressure -
 A REPORT ON MAIN BOILERS NOW FORWARDED? -
 A DONKEY BOILER FITTED? - If so, is a report now forwarded? -
 the donkey boiler be used for other than domestic purposes -
 Are approved plans forwarded herewith for Shafting - Main Boilers - Auxiliary Boilers - Donkey Boilers -
 (If not state date of approval)
 Superheaters - General Pumping Arrangements - Oil fuel Burning Piping Arrangements -

SPARE GEAR.

the spare gear required by the Rules been supplied AS BELOW
 the principal additional spare gear supplied 1 H.P. PISTON RING
1 L.P. PISTON RING
1 SET GOVERNOR SPRINGS
12 PISTON ROD METALLIC PACKING RINGS
6 VALVE ROD " " "
1 PAIR CONNECTING ROD BRASSES, BOLTS, NUTS & SPLIT PINS
1 PAIR CROSSHEAD " " " " " "
1 PAIR FLYWHEEL END " " " " " "
1 SET COUPLING BOLTS, NUTS & SPLIT PINS

The foregoing is a correct description.

FOR W. H. ALLEN, SONS & CO. LTD Manufacturer.



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Handwritten initials and date: JM 27/12/51

1951: July 3, 6, 28, 12, 23, 29, Nov. 6, 9, 23

Dates of Survey while building

During progress of work in shops - - -

During erection on board vessel - - -

Total No. of visits 8 (In shops)

Dates of Examination of principal parts - Cylinders 9.11.51 Slides 29.11.51 Covers 9.11.51

Pistons 23.10.51 Piston Rods 23.10.51 Connecting rods 23.10.51

Crank shaft 29.10.51 Thrust shaft ✓ Intermediate shafts ✓

Tube shaft ✓ Screw shaft ✓ Propeller ✓

Stern tube ✓ Engine and boiler seatings ✓ Engines holding down bolts ✓

Completion of fitting sea connections ✓ Boilers fixed ✓ Engines tried under steam ✓

Completion of pumping arrangements ✓

Main boiler safety valves adjusted ✓

Crank shaft material *Cast Steel* Identification Mark *SET 4 LLOYD'S F 2478 29.10.51* Thrust shaft material ✓ Identification Mark ✓

Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material ✓ Identification Mark ✓ Steam Pipes, material ✓ Test pressure ✓ Date of Test ✓

Is an installation fitted for burning oil fuel ✓

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 No. If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) *The Steam Generators have been constructed under special survey in accordance with the requirements of the rules; the steel was made at works approved by the Committee; the workmanship is good, and on completion the generator sets were tested upon the bench under full and overload conditions with satisfactory results*

Note: *The sets have been despatched to Hawthorn Leslie for fitting on board the vessel*

SURVEY OF MACHINERY.
NEWCASTLE-ON-TYNE.

These generating sets have satisfactorily installed in M.V. "CLUTHA RIVER", tested under full working conditions and found efficient

SURVEYOR TO LLOYD'S REGISTER.
NEWCASTLE-ON-TYNE.

R.W. Boomer
Engineer Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to

The amount of Entry Fee	£ 8 : 0	When applied for,	5/12/51
Special	£ :	When received,	19
Donkey Boiler Fee	£ :		
Travelling Expenses (if any)	£ 1 : 18/11		

Date **FRI. 1 AUG 1952**

Committee's Minute *See F.F. mchly rpt*