

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 10 When handed in at Local Office 24 MAY 1937 Port of SUNDERLAND.

No. in Survey held at SUNDERLAND.
Reg. Book.Date, First Survey 21 Oct '36 Last Survey 19 May 1937
(Number of Visits 92)

on the LOCH DEE

Built at Sunderland By whom built J. Thompson & Sons Ltd Yard No. 578 Tons Gross 5252 Net 2978 When built 1937

Engines made at Sunderland By whom made N. S. Marine Eng. Co. Ltd Engine No. 2869 When made 1937

Boilers made at Sunderland By whom made N. S. Marine Eng. Co. Ltd Boiler No. 2869 When made 1937

Registered Horse Power Owners MacLay & McIntyre, Ltd Port belonging to Glasgow

Nom. Horse Power as per Rule 409 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended

23-38-65
ENGINES, &c.—Description of Engines Triple expansion with HP & I.P. Poppet valves Revs. per minute

Dia. of Cylinders 23", 38" Length of Stroke 45" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule appd. Crank pin dia. 1 1/2" Crank webs Mid. length breadth shrunk Thickness parallel to axis 8 3/8" appd.
See also: Nos. 94675 as fitted 1 1/2" as per Rule appd. Mid. length thickness shrunk Thickness around eye-hole 7 1/2" appd.

Intermediate Shafts, diameter as per Rule appd. as fitted 1 1/2" Thrust shaft, diameter at collars as per Rule appd. as fitted 1 1/2"

Tube Shafts, diameter as per Rule appd. as fitted Screw Shaft, diameter as per Rule appd. as fitted 1 1/2" Is the (tube) shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule appd. as fitted 3/4" Thickness between bushes as per Rule appd. as fitted 5/8" Is the after end of the liner made watertight in the propeller boss Yes

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 No If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5'-0"

Propeller, dia. 18'-4" Pitch 18'-9" No. of Blades 4 Material Mang. Bronze whether Moveable No Total Developed Surface 109 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. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work Yes

Feed Pumps No. and size Two, 6" x 8 1/2" x 18" Pumps connected to the Main Bilge Line No. and size one, 9 1/2" x 12" x 21"; one, 10 1/2" x 14" x 24"
How driven Steam How driven Steam

Ballast Pumps, No. and size one, 10 1/2" x 14" x 24"; one, 9 1/2" x 12" x 21" 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 4 2 3/4" dia, two port, two star board, Thrust Room one 2 1/2" dia, Tunnel well one 3 1/2"

In Pump Room In Holds, &c. Ford 2 2 3/4" dia.; Ford main 2 2 3/4" dia.; after main 2 2 3/4" dia. after hold 2 2 3/4" dia. and 1 1/2" (self closing drain to tunnel well), in

Main Water Circulating Pump Direct Bilge Suctions, No. and size one 8" dia. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one, 5"

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 Yes

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 Both

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 Ford hold suction How are they protected Heavy plating of steel

What pipes pass through the deep tanks after hold bilge suction Have they been tested as per Rule Yes

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 Engine room grating

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 5682 sq. ft. subm. fuelward deck

Is Forced Draft fitted Yes No. and Description of Boilers Three cylindrical multi-tubular Working Pressure 220 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 14/9/36 Main Boilers in London Auxiliary Boilers Donkey Boilers

(If not state date of approval)

Superheaters General Pumping Arrangements in London 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

one propeller one set air pump valves

one screw shaft one set pads for Thrust block

6 Boiler tubes 10% total number steel plugs for Superheaters

6 condenser tubes 5% " " studs and nuts

1 Safety Valve spring 2% " " clamps

1 Bottom end bearing one safety Valve spring for "

1 Top end bearing

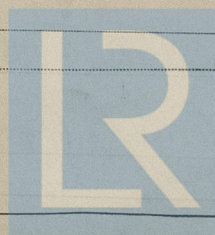
1 set H.P. piston rod packing

The foregoing is a correct description.

FOR THE NORTH EASTERN MARINE ENGINEERING CO. LTD

Archib. J. Berry.
MANAGER

Manufacturer.



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Lloyd's Register
Foundation

0 02711-001716-0212

Dates of Survey while building

During progress of work in shops -- 1936. Oct. 21, 28, 30, Nov. 6, 9, 12, 13, 16, 18, 19, 20, 23, 24, 26, 27, 30, Dec. 2, 7, 9, 10, 14, 17, 18, 21, 24, 28, 30

During erection on board vessel --- 1937. Jan. 4, 6, 7, 8, 11, 14, 15, 18, 19, 20, 21, 25, 27, 29, Feb. 1, 2, 3, 5, 8, 9, 10, 12, 15, 16, 17, 18, 19, 22, 24, Mar. 1, 2, 3, 4, 8, 9, 12, 13, 15, 17, 19, 20, 23, 24, 25, 31, Apr. 1, 2, 5, 6, 8, 12, 13, 15, 23, 24, 26, 27, 29, 30, May 3, 4, 6, 10, 11, 19

Total No. of visits 92

Dates of Examination of principal parts—Cylinders 17/2/37 Slides & pistons 18/2/37 Covers 9/3/37

Pistons 3/2/37 Piston Rods 22/2/37 Connecting rods 3/3/37

Crank shaft 17/2/37 Thrust shaft 9/2/37 Intermediate shafts 9/2/37

Tube shaft ✓ Screw shaft 2/4/37 spare 12/4/37 Propeller 8/4/37

Stern tube 12/4/37, 6/4/37 Engine and boiler seatings 29/1/37 Engines holding down bolts 3/5/37

Completion of fitting sea connections 3/2/37

Completion of pumping arrangements Boilers fixed 26/4/37 Engines tried under steam 4/5/37

Main boiler safety valves adjusted 4/5/37 Thickness of adjusting washers Port 3/8" port, 3/8" standard 1/4" dependent. Centre 5/32" port, 1/2" standard 5/16" dependent. Starboard 3/8" port, 1/2" standard 5/16" dependent.

Crank shaft material steel Identification Mark 9161 Thrust shaft material steel Identification Mark 9177

Intermediate shafts, material steel Identification Marks 9303, 9305 Tube shaft, material — Identification Mark —

Screw shaft, material steel Identification Mark 9280 Steam Pipes, material steel Test pressure 660 lb Date of Test 24.27/4/37

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 no 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 machinery of this vessel has been constructed under special survey in accordance with the approved plans, Secretary's letters and the requirements of the Rules. Workmanship and materials are good.

The machinery has been efficiently installed on board and tried under working conditions and found satisfactory and is eligible, in my opinion, for

Notation + L. M. C. 5.37.

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

Special ... £ 86 : 7 : 20 May 1937

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : 24 May 1937

Committee's Minute FRI 4 JUN 1937

Assigned + L.M.C. 5.37 (Spec)

Engineer Surveyor to Lloyd's Register of Shipping.



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SUNDERLAND.

in duplicate Certificate to be sent to

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

If not, state whether, and when, one will be sent

Is a Report also sent on the Hull of the Ship?

NOTE.—The words which do not apply should be deleted.