

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office *1941*

Date of writing Report *19* When handed in at Local Office *26.5.1941* Port of *GLASGOW*

No. in Survey held at *GLASGOW* Date, First Survey *1.4.40* Last Survey *15.4.1941*
 Reg. Book. *89084* on the *S/S "MICHAEL E"* (Number of Visits *90*) Tons *Gross 7628 Net 5508*

Built at *Pt. GLASGOW* By whom built *W. HAMILTON & CO. LD.* Yard No. *446* When built *1941*

Engines made at *GLASGOW* By whom made *DAVID ROWAN & CO. LD.* Engine No. *1064* When made *1941*

Boilers made at *-DO-* By whom made *-DO-* Boiler No. *1064* When made *1941*

Registered Horse Power *-* Owners *BURY HILL SHIPPS CO. LD.* Port belonging to *LONDON*

Nom. Horse Power as per Rule *443* Is Refrigerating Machinery fitted for cargo purposes *NO* Is Electric Light fitted *YES*

Trade for which Vessel is intended *-*

ENGINES, &c.—Description of Engines *TRIPLE EXPANSION* Revs. per minute

Dia. of Cylinders *24"-39"-68"* Length of Stroke *48"* No. of Cylinders *3* No. of Cranks *3*

Crank shaft, dia. of journals *as per Rule 13.89"* Crank pin dia. *14 1/4"* Crank webs *Mid. length breadth 23"* Thickness parallel to axis *9 1/8"*
as fitted 14 1/4" *Mid. length thickness 9 1/8"* Thickness around eye-hole *6 3/4"*

Intermediate Shafts, diameter *as per Rule 13.23"* Thrust shaft, diameter at collars *as per Rule 13.89"*
as fitted 13 3/8" *as fitted 14 1/4"*

Tube Shafts, diameter *as per Rule -* Screw Shaft, diameter *as per Rule 14.72"* Is the *tube* shaft fitted with a continuous liner *Yes*
as fitted - *as fitted 15 1/8"* *screw*

Bronze Liners, thickness in way of bushes *as per Rule 7.49"* Thickness between bushes *as per Rule 5.56"* Is the after end of the liner made watertight in the
as fitted 13 1/16" *as fitted 3 1/4"* 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 *Yes*

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 *-* Length of Bearing in Stern Bush next to and supporting propeller *5 1/4"*

Propeller, dia. *17-10"* Pitch *17-9"* No. of Blades *4* Material *CS* whether Moveable *Yes* Total Developed Surface *117* 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 1/2"* Stroke *24"* Can one be overhauled while the other is at work *Yes*

Feed Pumps { No. and size *20 9 1/2" x 7 1/4" x 21"* Pumps connected to the { No. and size *10 11" x 14" x 18"* *10 6 1/2" x 9" x 16"*
 How driven *Steam* Main Bilge Line How driven *Steam*

Ballast Pumps, No. and size *10 11" x 14" x 18"* 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 *303" Oil Pipe 203" 202"*
 In Pump Room *-* In Holds, &c. *Nº 1 & 4 Holds 203" Nº 2 Hold 204"*
Nº 3 Hold 202 1/2" Tunnel well 102 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size *108"* Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size *10 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 *Part*

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 *-* 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 *Yes* Is it fitted with a watertight door *Yes* worked from *upper deck*

MAIN BOILERS, &c.—(Letter for record *S*) Total Heating Surface of Boilers *5940* *sq. ft.*

Is Forced Draft fitted *Yes* No. and Description of Boilers *2 SE* Working Pressure *225 lb.*

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 *14-3-40* Main Boilers *Yes* Auxiliary Boilers *-* Donkey Boilers *-*
 (If not state date of approval)

Superheaters *Yes* General Pumping Arrangements *-* Oil fuel Burning Piping Arrangements *25/4/40*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*

State the principal additional spare gear supplied *List attached*

The foregoing is a correct description.

For David Rowan & Co. Ltd.
 Archd. N. Grierson

Manufacturer.



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Lloyd's Register

Foundation

W195-0206

1940 Apr: 1.2 May 8 June: 3.13.14.27.28 July: 9.11.18.24.26.29.30 Aug: 13.16.20.21.27
 During progress of work in shops -- Sep: 4.6.11.16.18.19.23.24.25.26 Oct: 1.2.3.4.7.11.15.17.18.21.24.28.30 Nov: 1.4.6.7.12.18.19.21.25.26.29 Dec: 3.4.5.9.10.12.13.16.24.27.30.31 (1941) Jan: 6.16.20.27 Feb: 4.14.17.
 Dates of Survey while building During erection on board vessel -- 25 Mar: 3.4.6.10.13.19.20.21.24.25.26 Apr: 4.15. May 15
 Total No. of visits 90

Dates of Examination of principal parts—Cylinders 23-9-40 Slides 15-10-40 Covers 23-9-40
 Pistons 6-11-40 Piston Rods 6-11-40 Connecting rods 26-9-40
 Crank shaft 2-10-40 Thrust shaft 12-12-40 Intermediate shafts 28-10-40
 Tube shaft — Screw shaft 26-11-40 Propeller 26-11-40
 Stern tube 3-12-40 Engine and boiler seatings 11-2-41 GRK. Engines holding down bolts 19-3-41
 Completion of fitting sea connections 11-2-41 GRK.
 Completion of pumping arrangements 15-4-41 Boilers fixed 19-3-41 Engines tried under steam 15-5-41
 Main boiler safety valves adjusted 4-4-41 Thickness of adjusting washers

Crank shaft material SM. Steel Identification Mark 9113 A7B Thrust shaft material SM. Steel Identification Mark 9113 A7B
 Intermediate shafts, material SM. Steel Identification Marks 9113 A7B Tube shaft, material — Identification Mark —
 Screw shaft, material SM. Steel Identification Mark 8982 A7B + test no. Steam Pipes, material Steel Test pressure 675 lb. Date of Test 26. Mar. 41
 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 — 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 Yes If so, state name of vessel Kingston Hill

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been built under special survey in accordance with the Rules and approved plans, and the materials and workmanship are good. It has been satisfactorily installed in the vessel, tested under working conditions and found efficient and, in my opinion, is eligible to be classed in the Register Book with mark +LMC 5.41 and notation CL.

26/5/41

The amount of Entry Fee ... £ 5 : - :
 Special ... £ 91 : 9 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 26 MAY 1941
 When received, 19

Committee's Minute GLASGOW 27 MAY 1941

Assigned - LMC 5.41

Engineer Surveyor to Lloyd's Register of Shipping.



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