

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

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State of writing Report *7th Nov. 1940* When handed in at Local Office *7th Nov. 1940* Port of *Dundee*

No. in Survey held at *Dundee* Date, First Survey *30th July* Last Survey *2nd Nov. 1940*
 Reg. Book. *0209* on the *S/S "TWICKENHAM"* (Number of Visits *17*) Tons *Gross 4462. Net 2663.*

Built at *Dundee* By whom built *Caledon S.B. & E. Co. Ltd.* Yard No. *385* When built *1940*

Engines made at *Newcastle* By whom made *N.E. Marine Eng. Co. Ltd.* Engine No. *2949* when made *1940*

Boilers made at *Newcastle* By whom made *N.E. Marine Eng. Co. Ltd.* Boiler No. *2949* when made *1940*

Registered Horse Power *✓* Owners *Britain S.S. Co. Ltd. (Watts-Watts & Co. Ltd.)* Port belonging to *London*

Nom. Horse Power as per Rule *393* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*

Trade for which Vessel is intended *Ocean going*

ENGINES, &c.—Description of Engines

Dia. of Cylinders	Length of Stroke	No. of Cylinders	Revs. per minute
as per Rule		Mid. length breadth	No. of Cranks
as fitted	Crank pin dia.	Mid. length thickness	Thickness parallel to axis
			Thickness around eye-hole

Intermediate Shafts, diameter as per Rule as fitted **Thrust shaft, diameter at collars** as per Rule as fitted

Tube Shafts, diameter as per Rule as fitted **Screw Shaft, diameter** as per Rule as fitted

Bronze Liners, thickness in way of bushes as per Rule as fitted **Thrust shaft, diameter at collars** as per Rule 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 If so, state type *plastic* Length of Bearing in **Stern Bush** next to and supporting propeller

Propeller, dia. Pitch *18"* of Blades *4* Material *cast iron* whether Moveable *✓* Total Developed Surface *1.5* sq. feet

Feed Pumps worked from the **Main Engines, No.** Diameter *1-3"* Stroke *1-3"* Can one be overhauled while the other is at work *✓*

Bilge Pumps worked from the **Main Engines, No.** Diameter *1-3"* Stroke *1-3"* Can one be overhauled while the other is at work *✓*

Feed Pumps No. and size *1-3"* How driven *by Main Engines* **Pumps connected to the Main Bilge Line** No. and size *1-3"* How driven *by Main Engines*

Ballast Pumps, No. and size *1-3"* **Lubricating Oil Pumps, including Spare Pump, No. and size** *1-3"*

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 In Engine Room *1-3" Port, 1-3" Starboard* In Boiler Room *1-2 1/2" Port, 1-2 1/2" Starboard*

In Holds, &c. *1-2 1/2" Port, 1-2 1/2" Starboard, Tunnel Well 1-2 1/2"* In No. 1 Hold *1-3" Port, 1-3" Starboard* No. 2 Hold *1-3" Port, 1-3" Starboard*

No. 3 Hold *1-3" Port, 1-3" Starboard* No. 4 Hold *1-3" Port, 1-3" Starboard* No. 5 Hold *1-3" Port, 1-3" Starboard*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *1-7"* **Independent Power Pump Direct Suctions** to the Engine Room Bilges, No. and size *1-5" Port, 1-5" Starboard*

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 *Except low injection tank* 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 except main discharge*

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 *Bilge Suctions to forward holds* How are they protected *In the limbers*

What pipes pass through the deep tanks *None* 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 *top platform*

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers *5790 sq. ft.*

Is Forced Draft fitted *Yes (Main)* No. and Description of Boilers *2 S.B. & 1 Aux. S.B.* Working Pressure *220 lbs.*

IS A REPORT ON MAIN BOILERS NOW FORWARDED? *✓*

IS A DONKEY BOILER FITTED? *✓* If so, is a report now forwarded? *✓*

PLANS. Are approved plans forwarded herewith for Shafting *✓* Main Boilers *✓* Auxiliary Boilers *✓* Donkey Boilers *✓*

(If not state date of approval)

Superheaters *✓* General Pumping Arrangements *With hull report* Oil fuel Burning Piping Arrangements *✓*

SPARE GEAR. State the articles supplied:— *As per Hwc Rpt. N° 98670.*

The foregoing is a correct description,

Manufacturer.



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Lloyd's Register
Foundation

003605-003616-0109

During progress of work in shops - - -
Dates of Survey while building
During erection on board vessel - - -
Total No. of visits 17

Dates of Examination of principal parts—Cylinders Slides Covers
Pistons Piston Rods Connecting rods
Crank shaft Thrust shaft Intermediate shafts
Tube shaft Screw shaft in place 13-8-40 Propeller in place 13-8-40
Stern tube in place 2/8/40 Engine and boiler seatings 17-9-40 Engines holding down bolts 10-10-40
Completion of fitting sea connections 13-8-40
Completion of pumping arrangements 23-10-40 Boilers fixed 15-10-40 Engines tried under steam at Sea 2-11-40
Main boiler safety valves adjusted 25-10-40 Thickness of adjusting washers Port BL P.V. 1 1/32 S.V. 1/2 Super 1 1/32 Star BL P.V. 1 1/32 S.V. 7/16 Super
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 Steel Test pressure 660 lbs Date of Test 23-10-40
Is an installation fitted for burning oil fuel No 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 ✓
Is this machinery duplicate of a previous case Yes If so, state name of vessel s/s "Tottenham"

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Engines & Boilers comprising this installation—Inve. Rpt. No 98670—have been efficiently fitted on board, the materials & workmanship being sound & good. On completion of fitting on board, all safety valves were adjusted under steam, & accumulation tests were carried out with satisfactory results. The Machinery was afterwards tried out at sea under full power & working conditions, when everything was found to function satisfactorily.

In my opinion the Machinery of this vessel is eligible to be classed in the Register Book with the records of + L.M.C. 11-40 Rht. 2 S.B. (Spt.) + 1 Aux. S.B. F.D., C.L.

The amount of Entry Fee ... £ : : When applied for,
Special 1/5th L.M.C. ... £ 16 : 15 : 0 8/11/1940
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 3-12-40 R.B.A.

Committee's Minute GLASGOW 12 NOV 1940

Assigned 1/1 Lmc 11.40

Rht. 2 S. Cpt.

John Houston
Engineer Surveyor to Lloyd's Register of Shipping.



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