

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office MAY 29 1940

Date of writing Report *RS* 10 When handed in at Local Office *27. 5. 19* No Port of *Belfast*
 No. in Survey held at *Belfast* Date, First Survey *27th Nov 1939* Last Survey *21st May 1940*
 Reg. Book. on the *STEEL SC "HIBISCUS"* (Number of Visits *82*) (Gross *723.89*)
 Built at *Belfast* By whom built *Heslop Haland, Wolff Ltd* Yard No. *1062* Tons } Net *269.41*
 Engines made at *Belfast* By whom made *Haland, Wolff Ltd* Engine No. *1062* When made *1940*
 Boilers made at *Belfast* By whom made *Haland, Wolff Ltd* Boiler No. *1062* When made *1940*
 Registered Horse Power Owners *The Admiralty* Port belonging to
 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 *Admiralty Service.*

ENGINES, &c.—Description of Engines *Four Cylinder Inverted Triple Expansion* Revs. per minute *185*
 Dia. of Cylinders *18 1/2" x 31" x 38 1/2" x 38 1/2"* Length of Stroke *30"* No. of Cylinders *4* No. of Cranks *4*
 Crank shaft, dia. of journals as per Rule *10.035"* Crank pin dia. *10 1/2"* Crank webs Mid. length breadth *16 3/4"* Thickness parallel to axis *6 1/2"*
 as fitted *10 1/2"* Mid. length thickness *6 1/2"* shrunk Thickness around eye-hole *4 3/4"*
 Intermediate Shafts, diameter as per Rule *9.557* Thrust shaft, diameter at collars as per Rule *10.035"*
 as fitted *10 1/4"* at ends increased to *15 1/4"* in body as fitted *10 1/2"*
 Tube Shafts, diameter as per Rule *10.432"* Screw Shaft, diameter as per Rule *10 7/8"* Is the *rod* shaft fitted with a continuous liner *Yes*
 as fitted *19.68/32"* as fitted *14.76/32"* Is the *screw* shaft fitted with a continuous liner *Yes*
 Bronze Liners, thickness in way of bushes as per Rule *5/8"* Thickness between bushes as per Rule *1 1/32"* Is the after end of the liner made watertight in the
 as fitted *5/8"* as fitted *1 1/32"* 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 *One length.*
 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. *10'-6"* Pitch *10'-8"* No. of Blades *3* Material *Man Bronze* whether Movable *Solid* Total Developed Surface *31* 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 *2 off 8 1/2" x 6" x 18" main* Pumps connected to the { No. and size *2 off 50 lbs/hr each* *one 5" Downton Pump*
 How driven *1 off 10 1/2" x 8" x 22" aux* Main Bilge Line { How driven *Steam* *Hand*
 Ballast Pumps, No. and size *as per Bilge* 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 *Eng Room 2 & 3" Boiler Room 4 & 3" including the 3 down*
 In Pump Room *✓* In Holds, &c. *7 & 2"*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *one & 9 1/2"* Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size *one & 3" in ER, one each & 3" in BR ROOMS* 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 *at water line*
 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 *7080 sq ft*
 Is Forced Draft fitted *Yes* No. and Description of Boilers *Two SE Multitubular* Working Pressure *225 lbs/sq*
 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 *App London* Main Boilers *✓* Auxiliary Boilers *✓* Donkey Boilers *✓*
 (If not state date of approval)
 Superheaters *✓* General Pumping Arrangements *✓* 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 *Please see attached list.*

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.

The foregoing is a correct description, FOR HARLAND AND WOLFF, LIMITED.

W. Marshall SECRETARY

Manufacturer.



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1939
 Nov. 27 Dec 12 1940
 Jan 1. 2. 3. 4. 9. 11. 15. 22. 23. 24. 29. Feb 6. 8. 12. 15. 14. 16. 17. 19. 21. 22. 23. 27. 28
 29 Mar. 2. 4. 5. 6. 7. 8. 11. 12. 13. 14. 16. 18. 19. 20. 21. 22. 27. 28. 29. 30 April 2. 3. 4. 6. 8. 9. 10. 11. 12.
 13. 15. 16. 17. 18. 19. 20. 24. 26. 27. 30 May 1. 2. 3. 6. 7. 8. 9. 10. 13. 15. 16. 17. 20. 21
 During progress of work in shops --
 During erection on board vessel --
 Total No. of visits **82**

Dates of Examination of principal parts—Cylinders 5.3.40 to 19.3.40 Slides 4.3.40 Covers 11.3.40
 Pistons 18.3.40 to 1.4.40 Piston Rods 18.3.40 to 1.4.40 Connecting rods 18.3.40
 Crank shaft 2.12.40 Thrust shaft 8.2.40 Intermediate shafts 29.3.40
 Tube shaft 3.4.40 Screw shaft 7.3.40 Propeller 4.4.40
 Stern tube 3.4.40 Engine and boiler seatings 4.4.40 Engines holding down bolts 19.4.40
 Completion of fitting sea connections 4.4.40
 Completion of pumping arrangements 13.5.40 Boilers fixed 8.4.40 Engines tried under steam 10.5.40
 Main boiler safety valves adjusted 10.5.40 Thickness of adjusting washers Ford Bl. P 3/8" S 3/8" 24. Bl. P 3/8" S 3/8"
 Crank shaft material Steel Identification Mark LLOYD 293 RS 21.2.40 Thrust shaft material Steel Identification Mark LLOYD No 347 GTT 2.2.40
 Intermediate shafts, material Steel Identification Marks LLOYD No 347 RS 29.3.40 Tube shaft, material Steel Identification Mark
 Screw shaft, material Steel Identification Mark LLOYD No 347 GTT 7.3.40 Steam Pipes, material Steel Test pressure 675 lbs/sq Date of Test 12.1.40 / 3.5.40
 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 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 Yes If so, state name of vessel "ARABIS" etc.

General Remarks (State quality of workmanship, opinions as to class, &c. These engines have been

constructed under special survey in accordance with the Rules and approved plans. The material, workmanship are good

The engines have been efficiently installed onboard the vessel and tried out at sea, under full working conditions, with satisfactory results.

In our opinion the vessel is eligible for the notation of 7 LMC 5,40, CL 25B-225 lbs/sq FD

The amount of Entry Fee ... £ 180: - : When applied for,
 Special ... £ 170: - : 19
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ : : 11. 11. 1940

R. Lee James & C. A. Thomas
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 31 MAY 1940**

Assigned, + Lmb 5.40
 F.D., C.F.
 Litt. foral fuel 5.40 etc



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