

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 17 JUN 1929

Date of writing Report 19 When handed in at Local Office 15-6-1929 Port of Belfast

No. in Survey held at Belfast Date, First Survey 31st Oct. 1928 Last Survey 11th June 1929
 Reg. Book. 89854 on the *Steel screw Steamer* "DEEBANK" (Number of Visits 50)

Built at Belfast By whom built Messrs Workman Clark (1928) Ltd. Yard No. 506 When built 1929

Engines made at Belfast By whom made Messrs Workman Clark (1928) Ltd. Engine No. 506 when made 1929

Boilers made at Belfast By whom made Messrs Workman Clark (1928) Ltd. Boiler No. 506 when made 1929

Registered Horse Power Owners The Bank Line, Ltd. Port belonging to Belfast

Nom. Horse Power as per Rule 565 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 *Quadruple Expansion* Revs. per minute

Dia. of Cylinders 22" 32" 46 3/4" 68" Length of Stroke 48" No. of Cylinders 4 No. of Cranks 4

Crank shaft, dia. of journals as per Rule 13.902" Crank pin dia. 1 1/4" Crank webs Mid. length breadth 2 1/2" Thickness parallel to axis 10 1/2" shrunk
 as fitted 1 1/4" Mid. length thickness 10 1/2" Thickness around eye-hole 6 1/4"

Intermediate Shafts, diameter as per Rule 13.24" Thrust shaft, diameter at collars as per Rule 13.902" as fitted 1 1/4"

Tube Shafts, diameter as per Rule 14.72" Is the {tube screw} shaft fitted with a continuous liner { Yes }
 as fitted 15"

Bronze Liners, thickness in way of bushes as per Rule 7.49" Thickness between bushes as per Rule 5.62" Is the after end of the liner made watertight in the propeller boss Yes
 as fitted 3/4" If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes

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 Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft No Length of Bearing in Stern Bush next to and supporting propeller 5-6"

Propeller, dia. 17'-9" Pitch 16'-3" No. of Blades 4 Material *brass* whether Moveable Yes Total Developed Surface 95 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 4 1/4" Stroke 24" Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/4" Stroke 24" Can one be overhauled while the other is at work Yes

Feed Pumps { No. and size two 8" x 10 1/2" x 22" Pumps connected to the { No. and size Ballast 12" x 12" x 12" Gen. Service 8" x 10 1/2" x 22" How driven steam Main Bilge Line How driven steam

Ballast Pumps, No. and size One 12" x 12" x 12" duplex Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 4-3" in engine room 1-3" Tunnel well

In Holds, &c. N^o 1 Hold 2-3 N^o 2 Hold 2-3 1/2 N^o 3 Coal Bunker 2-3 1/2 Deep Tank 2-3
 N^o 4 Hold 2-3 N^o 5 Hold 2-3

MAIN WATER CIRCULATING PUMP DIRECT BILGE SUCTIONS, No. and size one at 9" dia. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One ballast pump 5" dia. 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 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 below

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 How are they protected wood casing

What pipes pass through the deep tanks none 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 Shelter Deck

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 8112 sq. ft.

Is Forced Draft fitted Yes No. and Description of Boilers 3 S.E. Cylindrical 3 SB Working Pressure 260 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes

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

(If not state date of approval)

Superheaters General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—

2 Top End Bolts & Nuts	1 set Valves for Feed Pump	1 Propeller Shaft & Nut
2 Bottom " " "	1 " " " Bilge "	
2 Main Bearing Bolts & Nuts	1 Air Pump Rod	2 Cast Iron Propeller
1 set of Coupling Bolts & Nuts	2 Feed check valves	Blades
2 Cylinders Safety Valves	1 Dry. Gauge Glasses	
1 set H.P. Piston Rings & Springs	2 Dry. Packing rings for do.	
1 " M.P. " " "	2 Safety Valve Springs	
100 Condenser Journals	1 Dry. Plain Tubes	
25 " Tubes	100 Finishes	
	1 set Tube Stoppers	

The foregoing is a correct description,
 F. Cunningham
 SECRETARY

Manufacturer.



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

1928 1929

Oct 31 Nov. 2. 6. 8. 13. 16. 21. 23. 28. 30 Dec 3. 5. 6. 9. 17. 20 Jan 1. 4. 8. 11. 15. 17. 24. 30

During progress of work in shops - - Feb 4. 7. 19. 21. 22. 26. 27 Mar 4. 5. 6. 7. 8. 12. 13. 18. 20. 22. 26. 27. 28 Apr 4. 8. 10. 12.

Dates of Survey while building During erection on board vessel - - 15. 16. 17. 18. 19. 22. 23. 24. 26. 30 May 2. 6. 9. 8. 10. 15. 14. 15. 16. 17. 20. 21. 22. 23. 24. 27. 28. 30

June 4. 5. 7. 11

Total No. of visits **80.**

Dates of Examination of principal parts - Cylinders 22/3/29 H.P. 13/3/29 Slides 25/3/29 Covers 28/3/29

Pistons 28/3/29 Piston Rods 4/4/29 Connecting rods 8/3/29

Crank shaft 2/3/29 Thrust shaft 12/4/29 Intermediate shafts 20/3/29

Tube shaft ✓ Screw shaft 12/4/29 Propeller 4/4/29

Stern tube 10/4/29 Engine and boiler seatings 19/4/29 Engines holding down bolts 15/5/29

Completion of fitting sea connections 23/4/29

Completion of pumping arrangements 5/6/29 Boilers fixed 15/5/29 Engines tried under steam 4/6/29

Main boiler safety valves adjusted 4/6/29 Thickness of adjusting washers PORT BLR. 3/8 5/8 3/8 CENTRE BLR. 1/32 5/8 1/32 STAR BLR. 1/32 5/8 1/32

Crank shaft material Steel Identification Mark LLOYD N° 39 A.O.M. 8-3-29 Thrust shaft material Steel Identification Mark LLOYD N° 32 A.O.M. 12-4-29

Intermediate shafts, material Steel Identification Marks LLOYD N° 53 A.O.M. 20-3-29 Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material Steel Identification Mark LLOYD N° 51 A.O.M. 12-4-29 Steam Pipes, material S.D. Steel Test pressure 780 lbs. Date of Test 4/3/29 to 30/5/29

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 carrying and burning oil fuel been complied with yes

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 was constructed under Special Survey. The materials and workmanship are sound and good. The main engines and auxiliaries were tried under steam at a motored trial and sea trial, with satisfactory results. In my opinion the vessel is eligible for notation in the Register Book + L.M.C. 6.29 C.L. Boiler Pressure 260 lbs. Fitted for oil fuel F.P. above 150°F

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 6.29. C.L. F.D. Fitted for OIL FUEL 6.29. F.P. above 150°F.

J.M. Rm 19.6.29

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

The amount of Entry Fee ... £ 6 : - : When applied for, 15-6-1929

Special ... £ 103 : 5 : When received, 22-6-1929

Donkey Boiler Fee ... £ - : - :

Travelling Expenses (if any) £ - : - :

R. Morris R. Lee Amers
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 21 JUN 1929

Assigned + L.M.C. 6.29 F.D. Cl. Fitted for Oil fuel 6.29. F.P. above 150°F



DETFIFICATE WRITTEN.