

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office - 2 DEC 1929

Date of writing Report 19 When handed in at Local Office 30th Nov. 1929 Port of Belfast
 No. in Survey held at Belfast Date, First Survey 3rd Dec. 1928 Last Survey 27th Nov. 1929
 Reg. Book. 36736 on the S.S. "TRENTBANK" (Number of Visits 88)
 Built at Belfast By whom built Jimmie Workman Clark (1928) Ltd. Yard No. 507 Tons ^{Gross} _{Net}
 Engines made at Belfast By whom made Jimmie Workman Clark (1928) Ltd. Engine No. 507 When built 1929
 Boilers made at Belfast By whom made Jimmie Workman Clark (1928) Ltd. Boiler No. 507 when made 1929
 Registered Horse Power 565 Owners 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 1/8" Thickness parallel to axis 9"
 Intermediate Shafts, diameter as per Rule 13.24 Thrust shaft, diameter at collars as per Rule 13.902
 Tube Shafts, diameter as per Rule 14.72 Screw Shaft, diameter as per Rule 15" Is the screw shaft fitted with a continuous liner Yes
 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
 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
 Propeller, dia. 17-9" Pitch 16-3" No. of Blades 4 Material Bronze whether Movable 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 Main Bilge Line No. and size Belfast 12" x 12" x 12" Gen. Service 8" x 10 1/2" x 22"
 How driven steam How driven steam
 Ballast Pumps, No. and size One 12" x 12" x 12" 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 Load Bunker 2-3 1/2" Deep Tank 2-3"
N^o 4 Hold 2-3" N^o 5 Hold 2-3"

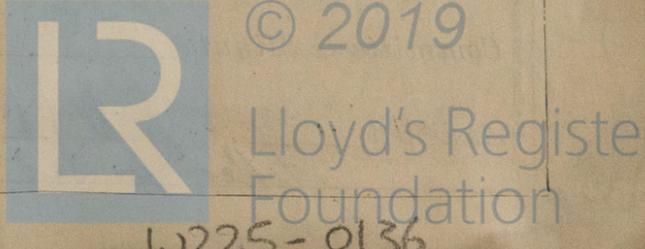
Main Water Circulating Pump Direct Bilge Suctions, No. and size one at 9" dia. **Independent Power Pump Direct Suctions to the Engine Room Bilges,**
 No. and size one ballast pump 5" bore Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes
 Are the Bilge Suctions in the 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 ceiling
 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 long from Halls Deck

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 8112 sq
 Is Forced Draft fitted Yes No. and Description of Boilers 3 S.C. cylindrical 358 Working Pressure 160 lbs.
IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
IS A DONKEY BOILER FITTED? No If so, is a report now forwarded?
PLANS. Are approved plans forwarded herewith for Shafting Main Boilers 5/10/28 Auxiliary Boilers Donkey Boilers
 Superheaters General Pumping Arrangements 24/2/29 Oil fuel Burning Piping Arrangements 24/2/29.

- SPARE GEAR.** State the articles supplied:—
- | | | |
|-----------------------------------|-------------------------------|------------------------------|
| 2 Top End Bolts + Nuts | 1 Air Pump Rod | 1 Propeller Shaft - Nut |
| 2 Bottom " " " | 2 Feed check valves | 2 Cast iron propeller blades |
| 2 Main Bearing Bolts + Nuts | 1 Drogen Gauge Glasses | |
| 1 Set of Coupling Bolts + Nuts | 2 Drg. Packing rings for same | |
| 1 Set H.P. Piston Rings + Springs | 2 Safety valve springs | |
| 1 " M.P. " " " | 1 Drg. Plain Tubes | |
| 100 Condenser Ferrules | 100 Frictions | |
| 25 " Tubes | 1 Set Tube Stoppers | |
| 1 Set Valves for Feed Pump | | |
| 1 Set " " Bilge " | | |

The foregoing is a correct description,
 FOR WORKMAN CLARK (1928) LIMITED,

J. Cunningham Secretary Manufacturer.
Grath



1928 Dec 3. 5. 6. 7. 20 1929 Jan 1. 4. 8. 11. 15. 17. 24. 30 Feb 4. 7. 12. 13. 19. 21. 22. 26. 27
 During progress of work in shops -- 28. Mar 5. 6. 7. 12. 13. 14. 18. 20. 22. 26. 27. 28 Apr 3. 4. 8. 10. 12. 15. 17. 19. 22. 24. 25
 Dates of Survey while building During erection on board vessel --- July 1. 2. 4. 5. 8. 14. 26. 30. 31 Aug 7. 8. 15. 20. Sept 3. Nov 19. 21. 27
 Total No. of visits 88

Dates of Examination of principal parts—Cylinders 29-4-29 Slides 10-4-29 Covers 10-4-29
 Pistons 4-4-29 Piston Rods 12-4-29 Connecting rods 12-4-29
 Crank shaft 26-4-29 Thrust shaft 26-4-29 Intermediate shafts 24-5-29
 Tube shaft - Screw shaft 24-5-29 Propeller 26-3-29
 Stern tube 23-5-29 fitted 27-5-29 Engine and boiler seatings 27-5-29 Engines holding down bolts 8-7-29
 Completion of fitting sea connections 27-5-29
 Completion of pumping arrangements 19-11-29 Boilers fixed 26-7-29 Engines tried under steam 19-11-29
 Main boiler safety valves adjusted 19-11-29 Thickness of adjusting washers Port P45 3/8" Centric P45 3/8" Star P45 3/8"
 Crank shaft material Steel Identification Mark LLOYDS N° 54 A.D.M. 26-4-29 Thrust shaft material Steel Identification Mark LLOYDS N° 55 A.D.M. 26-4-29
 Intermediate shafts, material Steel Identification Marks LLOYDS N° 60 A.D.M. 24-5-29 Tube shaft, material - Identification Mark -
 Screw shaft, material Steel Identification Mark LLOYDS N° 59 A.D.M. 24-5-29 Steam Pipes, material S.D. Steel Test pressure 780 lb. Date of Test 6-3-29
 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 If so, have the requirements of the Rules been complied with
 Is this machinery duplicate of a previous case If so, state name of vessel s.s. "DEEBANK"

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 moored trial and sea trial, with satisfactory results. In our opinion the vessel is eligible for notation in the Register Book + LMC. 11, 29. CL. Boiler pressure 260 lbs. D. Fitted for oil fuel. F.P. above 150°F.

It is submitted that this vessel is eligible for THE RECORD. + LMC 11.29. CL. F.D.

Fitted for oil fuel 11.29. F.P. above 150°F.

J. K. Williams 3/12/29

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 : - :
 Special ... £ 103 : 5 :
 Donkey Boiler Fee ... £ - : - :
 Travelling Expenses (if any) £ - : - :
 When applied for, 30th Nov 1929
 When received, 7.12.29

J. K. Williams
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

+ LMC 11.29 F.D. CL.
 Fitted for Oil Fuel 11.29 F.P. above 150°F



CERTIFICATE WRITTEN

FRI. 6 DEC 1929