

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 22 JUN 1931

Writing Report 19 When handed in at Local Office 19<sup>th</sup> June 1931 Port of Belfast

Survey held at Book. Date, First Survey 9<sup>th</sup> January Last Survey 16<sup>th</sup> June 1931  
(Number of Visits 16)

on the STEEL TWIN SC. "MARASBY"

at Belfast By whom built Harland Wolff Ltd. Yard No. 915 Tons <sup>Gross</sup> Not When built 1931

Engines made at Belfast By whom made Harland & Wolff Ltd. Engine No. 915 When made 1931

Boilers made at Belfast By whom made Harland Wolff Ltd. Boiler No. 915 When made 1931

Horse Power Owners Rago Shipping Co. Ltd. (A. Mein & Co. Ltd.) Port belonging to London

Power as per Rule 314 ✓ Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

which Vessel is intended Ocean-going.

**Cylinders, &c.—Description of Engines** Inverted triple expansion Revs. per minute

Dimensions 16"-26"-42" Length of Stroke 28" No. of Cylinders 6 No. of Cranks 6

dia. of journals as per Rule 8.135" ✓ as fitted 8.3/8" Crank pin dia. 8.3/8" ✓ Crank webs Mid. length breadth 16" ✓ Thickness parallel to axis 5.3/8" ✓

as per Rule 7.7/16" ✓ as fitted none Thrust shaft, diameter at collars as per Rule 8.135" ✓ as fitted 8.1/2" ✓

Shafts, diameter as per Rule 9" ✓ as fitted 9.1/4" ✓ Is the shaft fitted with a continuous liner? No. ✓

Is the after end of the liner made watertight in the Yes ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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 ✓

Are fitted, is the shaft lapped or protected between the liners No. ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube

If so, state type "Newark" by Ferguson Bros. ✓ Length of Bearing in Stern Bush next to and supporting propeller 37" ✓

dia. 10'-6" Pitch 9'-6" No. of Blades Four Material Man. Br. whether Moveable No. Total Developed Surface each set sq. feet

Propellers worked from the Main Engines, No. Two Diameter 23.1/2" Stroke 14" Can one be overhauled while the other is at work. Yes ✓

Propellers worked from the Main Engines, No. Two Diameter 23.1/2" Stroke 14" Can one be overhauled while the other is at work. Yes ✓

No. and size Two 9.1/2"-7" x 21" Pumps connected to the Main Bilge Line (No. and size Two Ballast 9.1/2" x 10" x 21" General Service 9.1/2" x 7" x 21" ✓)

How driven Steam ✓ Lubricating Oil Pumps, including Spare Pump, No. and size None ✓

Independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary

In Engine and Boiler Room Forward 3" Aft 3.1/2" ✓ In Holds, &c. (15 Cargo Pumps) Two 2.1/2" to Hold Cargo Spaces. ✓

on (15 Cargo Pumps) One 2" ✓

**Circulating Pump Direct Bilge Suctions, No. and size** Two 5.1/2" ✓ **Independent Power Pump Direct Suctions to the Engine Room Bilges,** One 4.1/2" ✓

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes. Yes ✓

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 ✓

Connections fitted direct on the skin of the ship. Yes ✓ Are they fitted with Valves or Cocks. Yes ✓

Are sufficiently high on the ship's side to be seen without lifting the stakehold plates. Yes ✓ Are the Overboard Discharges above or below the deep water line. Above ✓

Are 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 ✓

Do not pass through the bunkers. None ✓ How are they protected

Do not pass through the deep tanks. Have they been tested as per Rule

Are cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times. Yes ✓

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 to another. Yes ✓ Is the Shaft Tunnel watertight. None ✓ Is it fitted with a watertight door. ✓

**BOILERS, &c.—(Letter for record S ( ))** Total Heating Surface of Boilers 5112 sq. ft. ✓

Draft fitted Yes No. and Description of Boilers Two single-end Cyl. Mult- Working Pressure 180 lbs. ✓

**REPORT ON MAIN BOILERS NOW FORWARDED?** Yes ✓

**DONKEY BOILER FITTED?** No ✓ If so, is a report now forwarded? ✓

Is a boiler intended to be used for domestic purposes only. ✓

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

(If not state date of approval) General Pumping Arrangements. Yes ✓ Oil fuel Burning Piping Arrangements. Yes ✓

### SPARE GEAR.

Is spare gear required by the Rules been supplied. Yes ✓

Is principal additional spare gear supplied. See attached list.

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

Manufacturer.



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1931 Jan 9. 19. 22. 29. 30 Feb. 2. 3. 4. 6. 9. 16. 17. 18. 23. 25. 28. 29. 30. 31. Mar. 2. 11. 5. 10. 11. 12. 13  
 During progress of work in shops - - 20. 23. 26. 27. 30. 31 Apr. 2. 9. 10. 13. 14. 15. 16. 17. 20. 21. 23. 24. 28. 29. 30 May  
 Dates of Survey while building During erection on board vessel - - - 12. 13. 14. 15. 16. 18. 20. 21. 25. 26. 27. 28. 29 June 1. 2. 3. 4. 5. 8. 9. 10. 11. 12  
 Total No. of visits 76

Dates of Examination of principal parts—Cylinders 16<sup>th</sup> + 23<sup>rd</sup> Apr 1931 Slides 16. 4. 31 Covers 10. 4. 31  
 Pistons 10. 4. 31 Piston Rods 21<sup>st</sup> + 24<sup>th</sup> Apr 1931 Connecting rods 30. 3. 31  
 Crank shaft 27. 3. 31 Thrust shaft 1. 5. 31 Intermediate shafts ✓  
 Tube shaft ✓ Screw shaft 2<sup>nd</sup> 4. 31 Propeller 24. 4. 31  
 Stern tube 4<sup>th</sup> + 15<sup>th</sup> May 1931 Engine and boiler seatings 20. 5. 31 Engines holding down bolts 8. 6. 31  
 Completion of fitting sea connections 20. 5. 31  
 Completion of pumping arrangements 9. 6. 31 Boilers fixed 12. 6. 31 Engines tried under steam 9. 6. 31  
 Main boiler safety valves adjusted 12. 6. 31 Thickness of adjusting washers *Pat Blt Prs 7/16" Star Boiler P 7/16" 5 7/8"*  
 Crank shaft material *S. M. Steel* Identification Mark *No. 154 R.L.A.* Thrust shaft material *S. M. Steel* Identification Mark *No. 15*  
 Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material *S. M. Steel* Identification Mark *No. 156 R.L.A.* Steam Pipes, material *S. D. Steel* Test pressure *540 lbs.* Date of Test *23. 4. 31*  
 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 *lanter* If so, have the requirements of the Rules been complied with *2/16*  
 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 *No* If so, state name of vessel ✓

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

The machinery of this vessel has been constructed under special survey. The materials and workmanship are sound and good. The main propelling and auxiliary machinery under conditions gave satisfactory results. In my opinion the vessel is eligible for notation in the Society's Register Book. † L.M.C. 6.31 C.L. O.G. Boiler pressure 180 lbs. Fitted for oil fuel 6.31 & a Electric light.

The amount of Entry Fee ... £ 5 : - :  
 Special ... £ 7 1/2 : 2 :  
 Donkey Boiler Fee ... £ - : - :  
 Travelling Expenses (if any) £ - : - :

When applied for, 19 June 1931  
 When received, 5. 8. 1931

*R. Lee James*  
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 28 JUN 1931

Assigned † L.M.C. 6.31 O.G.



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Certificate to be sent to the Registrar of Shipping (The Registrar are requested not to write on or below the space for Committee's Minute.)