

# REPORT ON OIL ENGINE MACHINERY.

No. 57494

-8 OCT 1936

Received at London Office

Date of writing Report 7<sup>th</sup> Oct 1936 When handed in at Local Office 6. 10. 36 Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 20. 11. 35 Last Survey 25. 9. 1936  
 Reg. Book. 89902 on the Single Screw vessel MV. Queen Adelaide Tons {Gross 4932.6  
 {Net 2999.7  
 Number of Visits 57

Built at Glasgow By whom built Barday & Co Ltd Yard No. 658 When built 1936  
 Engines made at do. By whom made do. Engine No. 658 When made 1936  
 Donkey Boilers made at do. By whom made do. Boiler No. 658 When made 1936  
 Brake Horse Power 2250 Owners T. Dunlop & Sons Port belonging to Glasgow  
 Nom. Horse Power as per Rule 387 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Ys.  
 Trade for which vessel is intended 20 1/2 8 1/2

## OIL ENGINES, &c.—Type of Engines Port and Starboard piston 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 100 lb/sq in Diameter of cylinders 5.507 Length of stroke 10.407 No. of cylinders 3 No. of cranks 3  
 Mean Indicated Pressure 100 lb/sq in Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 10.407 Is there a bearing between each crank -

Revolutions per minute 123 Flywheel dia. 19.307 Weight 2.09 tons Means of ignition Comp. Kind of fuel used Diesel oil  
 Crank Shaft, dia. of journals as per Rule app. Crank pin dia. 4.107 Mid. length breadth 8.887 Thickness parallel to axis 2.807  
 as fitted 4.107 Crank Webs shrunk Mid. length thickness 1.907 Thickness around eye-hole 1.957

Flywheel Shaft, diameter as per Rule app. Intermediate Shafts, diameter as per Rule app. Thrust Shaft, diameter at collars as per Rule app.  
 as fitted 4.107 as fitted 12 1/2 as fitted 4.107

Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the {tube} shaft fitted with a continuous liner {  
 as fitted 1.574 as fitted 1.574 screw} Ys.

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the  
 as fitted 3/16 as fitted 3/16 propeller boss Ys. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Ys.

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 Ys.  
 If two liners are fitted, is the shaft lapped or protected between the liners Ys. Is an approved Oil Gland or other appliance fitted at the after end of the tube  
 shaft No. If so, state type Ys. Length of Bearing in Stern Bush next to and supporting propeller 51"

Propeller, dia. 14'-0" Pitch 10'-6" No. of blades 4 Material hony whether Moveable Solid Total Developed Surface 45 sq. feet  
 Method of reversing Engines Comp. in direct Is a governor or other arrangement fitted to prevent racing of the engine when decoupled Ys. Means of lubrication  
Ys. Thickness of cylinder liners 20% Are the cylinders fitted with safety valves Ys. Are the exhaust pipes and silencers water cooled or lagged with  
 non-conducting material Ys. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Ys.

Cooling Water Pumps, No. 10 1/2 x 8 x 8: 10 1/2 x 20 1/2 + 20 1/2 x 2 1/2 x 4 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Ys. for Compression  
 Bilge Pumps worked from the Main Engines, No. 1 Diameter 10 1/2 Stroke 10 1/2 Can one be overhauled while the other is at work Ys.

Pumps connected to the Main Bilge Line {No. and Size 10 1/2 x 10 x 10 + 10 1/2 x 6 x 8  
 How driven Steam  
 Is the cooling water led to the bilges No. If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping  
 arrangements Ys.

Ballast Pumps, No. and size 10 1/2 x 10 x 10 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 10 1/2 x 6 x 15: 10 1/2 x 3 1/2 x 20 1/2  
 Are two independent means arranged for circulating water through the Oil Cooler Ys. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
 Pumps, No. and size:—In Machinery Spaces 403" 10 1/2" in 603" 10 1/2" in tunnel well. In Pump Room 1

In Holds, &c. 20 1/2" in No. 1, 3, 4: 20 1/2" in No. 2 and 20 1/2" in dup tank.  
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 10 1/2"  
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Ys. Are the Bilge Suctions in the Machinery Spaces  
 led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Ys.

Are all Sea Connections fitted direct on the skin of the ship Ys. Are they fitted with Valves or Cocks Both.  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Ys. Are the Overboard Discharges above or below the deep water line Both.  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Ys. Are the Blow Off Cocks fitted with a spigot and brass covering plate Ys.

What pipes pass through the bunkers None How are they protected Ys.  
 What pipes pass through the deep tanks None Have they been tested as per Rule Ys.

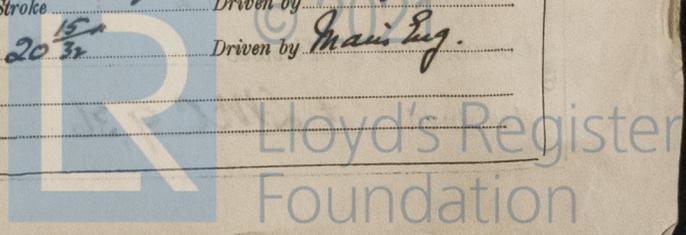
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Ys.  
 Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one  
 compartment to another Ys. Is the Shaft Tunnel watertight Ys. Is it fitted with a watertight door Ys. worked from Upper deck.

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Ys.

Main Air Compressors, No. 1 No. of stages 1 Diameters 10 1/2-2 1/2: 10 1/2 x 8 1/2 Stroke 6" Driven by Steam  
 Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 2 1/2 Stroke 6" Driven by Steam

Small Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 5 1/2 Stroke 20 1/2 Driven by Main Eng.  
 Scavenging Air Pumps, No. 1 Diameter 5 1/2 Stroke 20 1/2 Driven by Main Eng.

Auxiliary Engines crank shafts, diameter as per Rule  
 as fitted Ys.



**AIR RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule. *Yps.*

Can the internal surfaces of the receivers be examined and cleaned. *Yps.* Is a drain fitted at the lowest part of each receiver. *Yps.*

**High Pressure Air Receivers, No.** *1* Cubic capacity of each *1* Internal diameter *1* thickness *1*

Seamless, lap welded or riveted longitudinal joint *✓* Material *1* Range of tensile strength *1* Working pressure *1* by Rules Actual

**Starting Air Receivers, No.** *2* Total cubic capacity *250 ft.* Internal diameter *4 1/2"* thickness *1 3/32"*

Seamless, lap welded or riveted longitudinal joint *Welded* Material *5* Range of tensile strength *29.35 ton* Working pressure *160 lb.* by Rules Actual *600*

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

Is the donkey boiler intended to be used for domestic purposes only. *No.*

**PLANS.** Are approved plans forwarded herewith for Shafting *Yps.* Receivers *Yps.* Separate Tanks *Yps.*

Donkey Boilers *Yps.* General Pumping Arrangements *Yps.* Oil Fuel Burning Arrangements *Yps.*

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied. *Yps.*

State the principal additional spare gear supplied

*See Sub Attached.*

The foregoing is a correct description,  
**FOR BARCLAY, CURLE & CO., LTD.**

*Alexander Macnith* Manufacturer.

**Chief Draughtsman**

Dates of Survey while building  
 During progress of work in shops -- 1935 Nov. 20 Dec. 3. 16. 27. 30 (1936) Jan. 9. 20. 24. 29 Feb. 4. 12. 18. 24. 28 Mar. 4. 6. 10. 17. 25. 30  
 During erection on board vessel -- Apr. 3. 8. 15. 24. 29 May 6. 11. 21. 28 June 1. 4. 9. 12. 15. 22. 25. 26 July 2. 7. 13. 15. 28. 29. 30. 31 Aug  
 Total No. of visits *57* 10. 13. 19. 26. 27 Sep. 1. 9. 14. 16. 21. 22. 25

Dates of Examination of principal parts—Cylinders *26. 6. 36* Covers *1* Pistons *11. 5. 36* Rods *11. 5. 36* Connecting rods *1. 6. 36*

Crank shaft *and* Flywheel shaft *and* Thrust shaft *21. 5. 36* Intermediate shafts *7. 4. 36* Tube shaft *1*

Screw shaft *7. 7. 36* Propeller *7. 7. 36* Stern tube *2. 7. 36* Engine seatings *28. 7. 36* Engines holding down bolts *13. 8. 36*

Completion of fitting sea connections *29. 7. 36* Completion of pumping arrangements *25. 9. 36* Engines tried under working conditions *25. 9. 36*

Crank shaft, Material *and* Identification Mark *658-21.5.36* Flywheel shaft, Material *and* Identification Mark *10476498. 10476499. 12025*

Thrust shaft, Material *1/2" high steel* Identification Mark *26* Intermediate shafts, Material *1/2" high steel* Identification Marks *26. T2. 36*

Tube shaft, Material *1* Identification Mark *10476498. 10476499. 12025* Screw shaft, Material *do.* Identification Mark *10476498. 10476499. 12025*

Is the flash point of the oil to be used over 150° F. *Yps.*

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yps.*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *Yps.* If so, have the requirements of the Rules been complied with *Yps.*

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *Yps.*

Is this machinery duplicate of a previous case *No.* If so, state name of vessel *Yps.*

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

*This machinery has been built under special survey and in accordance with the Rules. The materials and workmanship are good. It has been efficiently secured in position on board and tried under full working conditions with satisfactory results.*

*The machinery of this vessel is eligible in my opinion to be classed in the Rules Book with notation of +LMC 9.36. 2DB-120 lb.*

*24/10/36*

The amount of Entry Fee	£ 5 : -	When applied for,	18
Special	£ 83 : 1	When received,	19
Donkey Boiler Fee	£ 12 : 12		
Travelling Expenses (if any)	£ :		

*Performa*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 6 - OCT 1936

Assigned + LMC 9.36 2DB-120 lb.



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