

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

No. 20549  
JUN - 8 1938

Received at London Office

JUN 17 1938

Date of writing Report 15. 4 1938 When handed in at Local Office 1<sup>st</sup> JUNE 1938 Port of GreenockNo. in Survey held at Greenock  
Reg. Book.Date, First Survey 8<sup>th</sup> OCTOBER 1934 Last Survey 30<sup>th</sup> MAY 1938

Number of Visits 60

Single  
on the Twin  
Triple  
Quadruple  
Screw vesselM/S "Davila"Tons } Gross 8053.30  
Net 4464.94Built at Greenock By whom built Lithgow & Co Yard No. 907 When built 1938Engines made at Greenock By whom made John Lithgow & Co Engine No. 1114 When made 1938Donkey Boilers made at ditto By whom made ditto Boiler No. 1114 When made 1938Brake Horse Power 2800 Owners Anglo Sardinian Petroleum Co Ltd Port belonging to LondonNom. Horse Power as per Rule 503 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YesTrade for which vessel is intended TowageOIL ENGINES, &c.—Type of Engines Diesel Solid Injection (under Portolani Superdiesel) or 4 stroke cycle Single or double acting SingleMaximum pressure in cylinders 600 Diameter of cylinders 25 1/8" Length of stroke 55 1/2" No. of cylinders 8 No. of cranks 8Mean Indicated Pressure 4.65 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 84 1/2" Is there a bearing between each crank YesRevolutions per minute 112 Flywheel dia. 221 9/16" Weight 2.9 tons Means of ignition Compression Kind of fuel used DieselCrank Shaft, { Solid forged  
Semi built  
All built } dia. of journals as per Rule 436 as fitted 460 Crank pin dia. 460 Crank Webs Mid. length breadth shrunk Thickness parallel to axis 267 Thickness around eye hole 205Flywheel Shaft, diameter as per Rule 436 as fitted 460 Intermediate Shafts, diameter as per Rule 2.18 as fitted 2.18 Thrust Shaft, diameter at collars as per Rule 1.28 as fitted 1.8Tube Shaft, diameter as per Rule 13.5 as fitted 18 Screw Shaft, diameter as per Rule 13.5 as fitted 18 Is the { tube  
screw } shaft fitted with a continuous liner YesBronze Liners, thickness in way of bushes as per Rule 42 as fitted 42 Thickness between bushes as per Rule 54 as fitted 11 1/16" Is the after end of the liner made watertight in thepropeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner —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 tubeshaft No If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 5.0"Propeller, dia. 15.0 Pitch 12.0 No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 42 sq. feetMethod of reversing Engines Air Is a governor or other arrangement fitted to prevent racing of the engine when detached Yes Means of lubricationForced Thickness of cylinder liners 40-48 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged withnon-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine FlangeCooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel YesBilge Pumps worked from the Main Engines, No. Two Diameter Rotary Stroke 35 tons Can one be overhauled while the other is at work YesPumps connected to the Main Bilge Line { No. and Size 3" 2 at 35 tons } one 8.8+10"{ How driven Main Engines } Steam EngineIs the cooling water led to the bilges None If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumpingarrangements —Ballast Pumps, No. and size None Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 (one 40 tons) (1.8+6-10)Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary BilgePumps, No. and size:—In Machinery Spaces 3.3 1/2" In Pump Room 4.3"Holds, &c. 2. 2 1/2" Tunnels 6.8" Cofferdams 2.3"Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two 6"Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spacesfitted from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YesAre all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks BothAre they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line aboveAre 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 YesWhat pipes pass through the bunkers None How are they protected —What pipes pass through the deep tanks None 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

apartment to another Yes Is the Shaft Tunnel watertight Not fitted Is it fitted with a watertight door — worked from —On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork —Main Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 5+11" Stroke 7 Driven by Steam Oil PumpSmall Auxiliary Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —What provision is made for first Charging the Air Receivers Steam driven compressorScavenging Air Pumps, No. — Diameter — Stroke — Driven by —Auxiliary Engines crank shafts, diameter as per Rule — as fitted — No. — Position Engine RoomHave the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith —

B.S.B.

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004900-004905-0111

AIR RECEIVERS:—Have they been made under survey

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined and cleaned

Injection Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Starting Air Receivers, No. 2

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

TRIDBS

Material

Range of tensile strength

Working pressure

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting  
(If not, state date of approval)

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

Receivers

Separate Fuel Tanks

Pumping Arrangements in Machinery Space

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

HR. 4680 WGM. 21. 3-38.

Propeller shaft complete (continuous) stamp  
Cast Iron Propeller.

The foregoing is a correct description,  
For JOHN G. KINCAID & CO. LIMITED.

Director. Manufacturer.

Dates of Survey while building  
During progress of work in shops-- (1934) Oct. 8. Nov. 8-10. 22. Dec. 9. 13. 20. 24. (1935) JAN. 12. 14. 19. 24. 25. 26. 31. FEB. 4. 8. 9. 10. 11. 14. 15. 16. 21. 23. 25. 28. MAR. 4. 8. 9. 10.  
During erection on board vessel-- 14. 18. 21. 24. 25. 26. 28. 31. APRIL 1. 15. 19. 20. 21. 25. 24. 29. MAY 2. 4. 5. 9. 11. 23. 24. 25. 30.  
Total No. of visits 60.

Dates of Examination of principal parts—Cylinders 14. 2. 38 Covers 15. 2. 38 Pistons 14. 3. 38 Rods 14. 2. 38 Connecting rods 14. 3. 38  
Crank shaft 25-1-38 Flywheel shaft 25-1-38 Thrust shaft 21. 2. 38 Intermediate shafts 28. 3. 38 Tube shaft  
Screw shaft 14-3. 38 Propeller 14. 3. 38 Stern tube 10-3. 38 Engine seatings 18. 3. 38 Engines holding down bolts 9. 5.  
Completion of fitting sea connections 21-3. 38 Completion of pumping arrangements 9-5. 38 Engines tried under working conditions 30. 5.

Crank shaft, Material S Identification Mark LR 7680 WGM. Flywheel shaft, Material S Identification Mark LR 7680 WGM.  
Thrust shaft, Material S Identification Mark LR 7680 WGM. Intermediate shafts, Material S Identification Marks LR 7680  
Tube shaft, Material S Identification Mark LR 7680 WGM. Screw shaft, Material S Identification Mark LR 7680

Identification Marks on Air Receivers

No 2133  
LLOYD'S TEST  
5713 4h  
W P 2504h  
WGM 24-12-37

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

Have the requirements of the Rules for oil fuel pipes and tank fittings 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

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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. These engines & boiler have been built under special survey in accordance with the approved plan. The workmanship & material are of good quality. They have now been securely fitted on board, tried under working conditions and found satisfactory.

The machinery is eligible in my opinion for the notation of Donkey Boiler WP 180th.

The amount of Entry Fee .. £ 6. :  
Special ... £ 100 : 3  
Donkey Boiler Fee ... £ 16 : 12  
Travelling Expenses (if any) £ 8 : 8

When applied for,  
3rd JUNE. 1938.

When received,  
7. 6 19 38

Committee's Minute GLASGOW 7 - JUN 1938

Assigned + LMC 538

DB-180th

W. Gordon-Mitchell  
Engineer Surveyor to Lloyd's Register of Shipping



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