

RECEIVED

24 JAN 1950

REPORT ON OIL ENGINE MACHINERY.

No. 3279

IN D.O.

Received at London Office 17 JAN 1950

Date of writing Report 22.12. 1949 When handed in at Local Office 16. 1. 1950 Part of BARROW

No. in Survey held at BARROW Date, First Survey 5th Aug. 1948 Last Survey 20 Decr. 1949 Reg. Book. Number of Visits 125.

Single on the Twin Triple Quadruple Screw vessel M/V "BRITISH GENERAL" Tons Gross Net

Built at HAVERTON HILL-ON-TEES By whom built FURNESS SHIPBUILDING CO. Yard No. 434 When built

Engines made at BARROW By whom made VICKERS-ARMSTRONGS, LTD. Engine No. 983 When made 1949

Donkey Boilers made at By whom made Boiler No. When made

Brake Horse Power 3300 Owners British Tanker Co. Ltd. Port belonging to London

Nom. Horse Power as per Rule 712 = MN Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Y.

Trade for which vessel is intended Tanker.

OIL ENGINES, &c. Type of Engines OPPOSED PISTON 2 or 4 stroke cycle 2 Single or double acting S.

Maximum pressure in cylinders 640 lbs. Diameter of cylinders 600m/m Length of stroke 2320m/m No. of cylinders 4 No. of cranks 12

Mean Indicated Pressure 88 lbs. Centres of side rods 1120 m/m Ford. 1690 m/m Ford. 1.33 tons Is there a bearing between each crank No

Revolutions per minute 108 Flywheel dia. 2450 m/m Weight 3.26 tons Means of ignition Compression Kind of fuel used Heavy Oil

Crank Shaft Solid forged Semi built All built dia. of journals as per Rule Appd. 450 Crank pin dia. 450 Crank webs Mid. length breadth 192 Thickness parallel to axis 255

Flywheel Shaft, diameter as per Rule Appd. 450 Intermediate Shafts, diameter as per Rule Appd. 173/4" Thrust Shaft, diameter at collars as fitted Appd. 450

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule Appd. 173/4" Is the tube screw shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the propeller boss

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 tube shaft

If so, state type Length of bearing in Stern Bush next to and supporting propeller

Propeller, dia. 16'7" Pitch No. of blades Material whether moveable Total developed surface sq. feet

Method of reversing Engines Hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced

Thickness of cylinder liners 25 m/m Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled

Are the exhaust pipes and silencers lagged with non-conducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and size How driven

Is the cooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements

Ballast Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both main bilge pumps and auxiliary

Bilge pumps, No. and size: In machinery spaces In pump room

holds, &c.

Independent Power Pump Direct Suctions to the engine room bilges, No. and size

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Are the bilge suction 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

Are all Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed

efficiently high on the ship's side to be seen without lifting the platform plates Are the overboard discharges above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel Are the blow off cocks fitted with a spigot and brass covering plate

What pipes pass through the bunkers How are they protected

What pipes pass through the deep tanks 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

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 Is the shaft tunnel watertight Is it fitted with a watertight door worked from

Is 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. No. of stages diameters stroke driven by

Small Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

What provision is made for first charging the air receivers

Revolving Air Pumps, No. Two, double acting diameter 1510 m/m stroke 510 m/m driven by M.E. Levers

Auxiliary Engines crank shafts, diameter as per Rule as fitted Position

Have the auxiliary engines been constructed under special survey Is a report sent herewith



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AIR RECEIVERS:—Have they been made under survey..... State No. of report or certificate.....

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..... Is a drain fitted at the lowest part of each receiver.....

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 by Rules..... Actual.....

Starting Air Receivers, No..... Total cubic capacity..... Internal diameter..... thickness.....

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

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

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

PLANS. Are approved plans forwarded herewith for shafting..... 20/4/48 Receivers..... Separate fuel tanks.....

Donkey boilers..... General pumping arrangements..... Pumping arrangements in machinery space.....

Oil fuel burning arrangements.....

SPARE GEAR.

Has the spare gear required by the Rules been supplied..... Yes

State the principal additional spare gear supplied..... To be dealt with at the Shipyard.



The foregoing is a correct description, Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1948 Aug. 5. 10. 12. 13. 17. 19. 23. 24. 25. 27. Sep. 3. 7. 9. 10. 24. 27. 28. 30. Oct. 1. 5. 6. 7. 8. 11. 12. 13. 15. 18. 19. 20. 22. 27. 28. 29. Nov. 2. 3. 4. 5. 9. 10. 11. 17. 19. 24. 29. 30. Dec. 2. 9. 17. 21. 23. 24. 31.
	During erection on board vessel - -	1949 Jan. 11. 14. 20. 25. 26. 28. Feb. 1. 3. 9. 22. Mar. 9. 10. 16. 24. 28. 29. 31. Apr. 1. 7. 8. 12. 14. 19. 21. 22. 25. 26. 28. May 4. 9. 17. 19. 31. June 1. 2. 7. 8. 9. 10. 13. 15. 20. 21. 22. 23. July 15. 19. 21. Aug. 2. 5. 8. 11. 12. 17. 22. Sep. 1. 14. 21. 29. Oct. 4. 31. Nov. 1. 14. 16. 28. Dec. 5. 9. 14. 19. 20.
	Total No. of visits	125.

Dates of examination of principal parts—Cylinders 9/3/49 to 21/6/49 Covers - Pistons 8/6/49 to 22/8/49 Rods 8/6/49 to 22/8/49 Connecting rods 14.4.49

Crank shaft 21/9/49 Flywheel shaft - Thrust shaft See crank Intermediate shafts - Tube shaft -

Screw shaft - Propeller - Stern tube - Engine scatings - Engine holding down bolts -

Completion of fitting sea connections - Completion of pumping arrangements - Engines tried in shops under working conditions 9/12/49

Crank shaft, material S. Steel Identification mark 183.4/8/49 L.R.H. Flywheel shaft, material - Identification mark -

Thrust shaft, material - Identification mark - Intermediate shafts, material - Identification marks -

Tube shaft, material - Identification mark - Screw shaft, material - Identification mark -

Identification marks on air receivers -

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with -

Description of fire extinguishing apparatus fitted -

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 No. If so, state name of vessel.

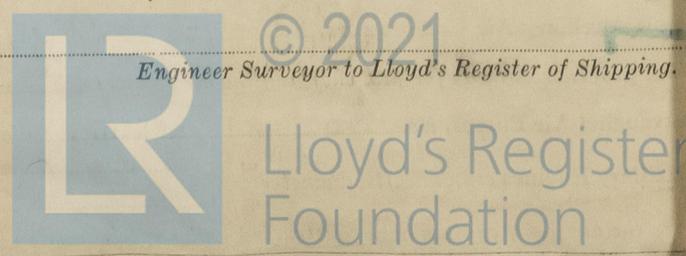
General Remarks (State quality of workmanship, opinions as to class, &c.)

These engines have been constructed under Special Survey in accordance with the approved plan, Secretary's letters and requirements of the Rules. Workmanship and materials are good.

The engines have been tried under full working conditions in the shops with satisfactory results. They have been despatched to the Shipyard for installation.

[Handwritten signature]

The amount of Entry Fee ... £	When applied for 3.1.50
Special 2/3 ... £144 18. 0	When received 19
Donkey Boiler Fee... £	
Weldings..... £18 13. 0	
Travelling Expenses (if any) £	



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

Committee's Minute FRI, 23 JUN 1950
Assigned Su F.E. Welch rpt.