

REPORT ON OIL ENGINE MACHINERY.

No. 16438

OCT 13 1938

Received at London Office

Date of writing Report 3rd October 1938 When handed in at Local Office 4th October 1938 Port of Middlesbrough

No. in Survey held at Haverton Hill on Tees Date, First Survey 8th December 1937 Last Survey 30th September 1938

Reg. Book. 89965 Single on the Tees }
Triple }
Quadruple }

Screw vessel

"SAN. DELFINO"

Number of Visits 20

Tons { Gross 8072.04
Net 4770.63

Built at Haverton Hill on Tees By whom built Furness S&Co Ltd. Yard No. 283 When built 1938

Engines made at Haworth on Tyne By whom made Haworth Leslie & Co Ltd Engine No. 3941 When made 1938

Donkey Boilers made at " By whom made " Boiler No. 3941 When made 1938

Brake Horse Power 3500 Owners Bayle Gil & Shipping Co Ltd. Port belonging to London

Nom. Horse Power as per Rule 502. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended Carrying Petroleum in bulk.

II ENGINES, &c.—Type of Engines 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders _____ Diameter of cylinders _____ Length of stroke _____ No. of cylinders _____ No. of cranks _____

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge _____ Is there a bearing between each crank _____

Revolutions per minute _____ Flywheel dia. _____ Weight _____ Means of ignition _____ Kind of fuel used _____

Crank Shaft, dia. of journals as per Rule _____ Crank pin dia. _____ Crank Webs Mid. length breadth _____ Thicknes parallel to axis _____
as fitted _____ Mid. length thickness _____ shrunk _____ Thicknes around eyehole _____

Flywheel Shaft, diameter as per Rule _____ **Intermediate Shafts, diameter** as per Rule _____ **Thrust Shaft, diameter at collars** as per Rule _____
as fitted _____ as fitted _____ as fitted _____

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

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

If the liner is in more than _____ 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 tube shaft _____ Length of Bearing in Stern Bush next to and supporting propeller _____

Propeller, dia. _____ Pitch See _____ No. of blades _____ Material _____ whether Moveable _____ Total Developed Surface _____ sq. feet

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

Thickness of cylinder liners _____ Are the cylinders fitted with safety valves _____ Are the exhaust pipes and silencers water cooled or 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 yes

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 _____

Ballast Pumps, No. and size _____ 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, No. and size:—In Machinery Spaces 1 P/S Ford 3 1/2" 1 after well 3 1/2" 1 for 7 aft cofferdam each 2 1/2"
in Holds, &c. P/S Chain locker flat 2" F Peak 4" P/S Hold 2" P/S Coffdam 2" F Pump Room 2" P/S Pump Room 3 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 2 5" 2 1 2 6"

Are all the Bilge Suction pipes in Holds and Tank Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces
fitted 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 platform plates yes Are the Overboard Discharges above or below the deep water line above

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 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
compartment to another yes Is the Shaft Tunnel watertight _____ 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 11" & 6" Stroke 7 Driven by Steam

Small Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____

Exhausting Air Pumps, No. _____ Diameter _____ Stroke _____ Driven by _____

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

III RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule _____

Are the internal surfaces of the receivers be examined _____ What means are provided for cleaning their inner surfaces _____

Is there a drain arrangement fitted at the lowest part of each receiver _____

High Pressure 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 _____

Working 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 _____

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - } 1937. Dec. 9. 1938. May. 10. Jun. 16. 22. 24. 28. July. 11. 19. Aug. 10. 29. Sep. 6. 8. 12. 14. 20. 22. 23. 28. 29. 30.
 Total No. of visits 20

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods
 Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 Screw shaft Propeller 22.6.38 Stern tube 16.6.38 Engine seatings ✓ Engines holding down bolts 19.8.38
 Completion of fitting sea connections 28.6.38 Completion of pumping arrangements 23.9.38 Engines tried under working conditions 29.9.38
 Crank shaft, Material Identification Mark 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

Is the flash point of the oil to be used over 150° F. 72°

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.) The machinery described in Newcastle Report 96422. has been installed under Special Survey in accordance with the requirements of the Rules all prescribed tests on oil fuel filling & burning arrangement of pipes & fittings have been carried out. Pumping arrangements are in accordance with the approved plans. Donkey Boiler & air receiver valves adjusted 185 & 350 lbs respectively. The machinery was found satisfactory on full power trials & is eligible in my opinion to have the Records + RMC 9.38.
 CL 2DB.180lb.

Certificate (if required) 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 ... £
 Special ... £
 Donkey Boiler Fee ... £
 Travelling Expenses (if any) ... £

When applied for, 19
 When received, 19

R. Moffatt
 Engineer Surveyor to Lloyd's Register of Shipping.

TUE 18 OCT 1938

Committee's Minute
 Assigned + RMC 9.38 C.L.
 2 DB. 180lb. Oil engines

