

REPORT ON OIL ENGINE MACHINERY.

No 35269

27 JAN 1950

Received at London Office

Date of writing Report

When handed in at Local Office

25 January 1950 Port of

Sunderland

No. in Survey held at
Reg. Book.

Sunderland

Date, First Survey 19 March 1948

Last Survey 24 January 1950

Number of Visits 45

Single
Twin
Triple
Quadruple
on the Twin Screw vessel

"DARTMOOR"

Tons Gross 3324
Net 2928

Built at Sunderland

By whom built W. Bayford & Sons Ld.

Yard No. 441

When built 1949

Engines made at Sunderland

By whom made W. Bayford & Sons Ld.

Engine No. 441

When made 1949

Donkey Boilers made at Stockton

By whom made Stockton Chem. & Ice Ld.

Boiler No. 4043

When made 1949

Brake Horse Power 3300

Owners Moor Line Ld.

Port belonging to London

Nom. Horse Power as per Rule M.N. 412

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted Yes.

Trade for which vessel is intended

L ENGINES, &c.—Type of Engines Opposed piston Arden Injection 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 640 lbf/sq. in. Diameter of cylinders 600 mm Length of stroke upper 980 mm / lower 1340 mm No. of cylinders 4 No. of cranks 4 Triple Crank

Lead Indicated Pressure 98 lbf/sq. in. Mean of bearings, adjacent to the Crank, measured from inner edge to inner edge 886 mm Is there a bearing between each crank Between each triple throw

Revolutions per minute 108 Flywheel dia. F. 1430 mm Weight 2.2 tons (Beliner) Means of ignition Compression Kind of fuel used —

Crank Shaft, Solid forged dia. of journals as per Rule 431 mm Crank pin dia. 450 mm Crank Webs as per Rule 322 mm Mid. length breadth 650 mm Thickness parallel to axis 255 mm

as fitted 450 mm as fitted 450 mm as fitted 365 mm as fitted 431 mm as fitted 450 mm

Flywheel Shaft, diameter as per Rule 431 mm Intermediate Shafts, diameter as per Rule 322 mm Thrust Shaft, diameter at collars as per Rule 431 mm

as fitted 450 mm as fitted 365 mm as fitted 450 mm

Tube Shaft, diameter as per Rule 389 mm Is the tube screw shaft fitted with a continuous liner Yes.

as fitted 389 mm as fitted 389 mm as fitted 389 mm

Bronze Liners, thickness in way of bushes as per Rule 20 mm Thickness between bushes as per Rule 16 mm Is the after end of the liner made watertight in the propeller boss Yes.

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length.

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 —

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 —

If so, state type 10.7' at root Length of Bearing in Stern Bush next to and supporting propeller 4'-11"

Propeller, dia. 16'-0" Pitch 1302 at tips No. of blades 4 Material Bronze whether Moveable No. Total Developed Surface 88.46 sq. feet

Method of reversing Engines Hand lever Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes. Means of lubrication —

Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged with

conducting material Yes. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine —

oling Water Pumps, No. one Engine driven Is the sea suction provided with an efficient strainer which can be cleared within the vessel (F.W. Cooling)

Large Pumps worked from the Main Engines, No. None Diameter — Stroke — Can one be overhauled while the other is at work —

Pumps connected to the Main Bilge Line No. No. and Size 2-3 1/2" x 6" x 15" Simplex How driven Steam

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 —

Fast Pumps, No. and size 1-12 1/2" x 14" x 24" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size one Engine driven 110 mm x 510 mm

two independent means arranged for circulating water through the Oil Cooler Yes. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge one Steam driven 4" x 8" x 18"

Pumps, No. and size:—In Machinery Spaces 4 @ 3" L.E.R. 1-3" Tunnel Well. In Pump Room —

Holds, &c. N°1. 3" p.r. N°2. 3 1/2" p.r. N°3 (keep tank) 2 1/2" p.r. N°4. 3" p.r. N°5. 3" (aft).

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-8" (Ballast) 1-5" (Bilge pump)

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes. Are the Bilge Suctions in the Machinery Spaces Yes.

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes.

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

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 Below.

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.

at pipes pass through the bunkers None How are they protected —

at pipes pass through the deep tanks For hold bilge suction Have they been tested as per Rule Yes.

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.

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 Yes. Is it fitted with a watertight door Yes. worked from ERTop

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork — Driven by Steam Engine

Main Air Compressors, No. Two No. of stages Three Diameters 11 1/2"-2 3/4" 11 1/2"-9 1/4" 2 3/4" Stroke 4" Driven by 13 1/2" x 4"

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

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

That provision is made for first Charging the Air Receivers (Steam driven Compressors)

Exhausting Air Pumps, No. Two Diameter 1510 mm Stroke 510 mm Driven by Power from Main Engine

Auxiliary Engines crank shafts, diameter as per Rule No. — Position —

as fitted — as fitted — as fitted —

Are the Auxiliary Engines been constructed under special survey — Is a report sent herewith —

