

# REPORT ON OIL ENGINE MACHINERY.

No. 30440

21 AUG 1930

Received at London Office  
20 AUG. 1930 Port of Sunderland

Date of writing Report 10 When handed in at Local Office Sunderland  
No. in Survey held at Sunderland  
Reg. Book.

Date, First Survey Jan 8 Last Survey Aug 22 1930  
Number of Visits 56

23<sup>rd</sup> (see telegram)

on the Single Motor "TMA"  
Triple Screw vessel

Tons { Gross 6842  
Net 4026

Built at Sunderland By whom built William Dwyer & Sons Ltd. Yard No. 608 When built 1930  
Engines made at Sunderland By whom made Do Engine No. 608 When made 1930  
Donkey Boilers made at Amman By whom made Do Boiler No. Do When made 1930  
Brake Horse Power 2600 Owners S. Marcussen Port belonging to Oslo  
Nom. Horse Power as per Rule 598 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
Trade for which vessel is intended Oil Tanker

**OIL ENGINES, &c.**—Type of Engines Stroke Cycle Approved fitting 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 558 lbs Diameter of cylinders 550 = 22" Length of stroke 2100 = 85" No. of cylinders 4 No. of cranks 4 x 3 throw

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 980" Is there a bearing between each crank Yes

Revolutions per minute 95 Flywheel dia. 2352" Weight 5.6 TONS Means of ignition TEMP OF COMPRESSION Kind of fuel used CRUDE OIL

Crank Shaft, dia. of journals as per Rule 400 APPROVED Crank pin dia. 440" Crank Webs Mid. length breadth 620" Thickness parallel to axis 245"  
as fitted 400 APPROVED Mid. length thickness 245" shrunk Thickness around eye hole 205"

Flywheel Shaft, diameter as per Rule 400 APPROVED Intermediate Shafts, diameter as per Rule 380 APPROVED Thrust Shaft, diameter at collars as per Rule 400 APPROVED  
as fitted 400 APPROVED as fitted 380 APPROVED as fitted 400 APPROVED

Tube Shaft, diameter as per Rule 400 APPROVED Screw Shaft, diameter as per Rule 400 APPROVED Is the shaft shaft fitted with a continuous liner Yes  
as fitted 400 APPROVED as fitted 400 APPROVED as fitted 400 APPROVED

Bronze Liners, thickness in way of bushes as per Rule 20" APPROVED Thickness between bushes as per Rule 20" APPROVED 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 Yes

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 Yes

If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft No Length of Bearing in Stern Bush next to and supporting propeller 5'-6"

Propeller, dia. 16'-3" Pitch 13'-3" No. of blades 4 Material BRONZE whether Moveable No Total Developed Surface 90 sq. feet

Method of reversing Engines COMPRESSED AIR Is a governor or other arrangement fitted to prevent racing of the engine when detached YES Means of lubrication FORCED Thickness of cylinder liners REINFORCED Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with non-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 FRESH WATER COOLING

Cooling Water Pumps, No. 1 ON MAIN ENGINE 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. 1 SALES, READY COUPLET Diameter TONS Stroke TONS Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and Size 1 BALLAST 200 PR HR, 1 BILGE 45 PR HR, 1 GENERAL SERVICE 45 TONS PER HR. How driven STEAM STEAM STEAM

Ballast Pumps, No. and size 1 @ 200 PR HR Lubricating Oil Pumps, including Spare Pump, No. and size 1 ON MAIN ENGINE, 1 SPARE 25 TONS PR HR, READY COUPLET

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 3 @ 3 1/2", 2 @ 4" & 1 @ 8"

In Holds, &c. 2 @ 3 1/2" CARGO HOLD FORD.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 8" TO BALLAST PUMP.

Are all the Bilge Suction pipes in Holds and Tunnel Well, fitted with strum-boxes Yes 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 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 BELOW

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 Yes

What pipes pass through the deep tanks NONE Have they been tested as per Rule Yes

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

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

Main Air Compressors, No. 1 No. of stages 1 Diameters 12, 9 1/4, 3 1/2 Stroke 6" Driven by Steam

Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 12, 9 1/4, 3 1/2 Stroke 6" Driven by Steam

Small Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 12, 9 1/4, 3 1/2 Stroke 6" Driven by Steam

Scavenging Air Pumps, No. 1 Diameter 1840" Stroke 550" Driven by Low pressure main engine

Auxiliary Engines crank shafts, Diameter as per Rule Yes as fitted Yes

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

Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces manhole down

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

High Pressure Air Receivers, No. 1 Cubic capacity of each 120 Internal diameter 3'-6" thickness 1"

Seamless, lap welded or riveted longitudinal joint RIVETTED Material STEEL Range of tensile strength 28/32 TONS Working pressure by Rules 6/10

Starting Air Receivers, No. 2 Total cubic capacity 220 Internal diameter 3'-6" thickness 1"

Seamless, lap welded or riveted longitudinal joint RIVETTED Material STEEL Range of tensile strength 28/32 TONS Working pressure by Rules 6/10



