

REPORT ON OIL ENGINE MACHINERY.

No. 6

21 APR 1928

Received at London Office

Date of writing Report 5th March 1928 When handed in at Local Office

Port of DUSSELDORF

No. in Survey held at Cologne-Deutsch
Reg. Book.Date, First Survey 18th January 1928 Last Survey 23rd February 1928
Number of Visits 7Single
on the Twin
Triple
Quadruple } Screw vessel

Energie

Tons { Gross
Net

Built at Queensferry near Chester

By whom built H. de la Mitchell's Shipyard

Yard No. 535 When built

Engines made at Cologne-Deutsch

By whom made Motorenfabrik Deutsch A. G.

Engine No. 205195/202 When made Febr. 1928

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 2 sets 200 H.P. each

Owners Midway Oil Storage Co. London

Port belonging to

m. Horse Power as per Rule 57 each Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted Yes

ade for which vessel is intended

ENGINES, &c.—Type of Engines Heavy Oil Engine S.V.M.V. 145. 2 or 4 stroke cycle Single or double acting
Minimum pressure in cylinders 40 kg. p. sq. cm. Diameter of cylinders 280 mm. Length of stroke 450 mm. No. of cylinders 4 per set No. of cranks 4 per set
No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 334 mm. Is there a bearing between each crank Yes
Revolutions per minute 300 Flywheel dia. 1200 mm. Weight 1940 kg. Means of ignition Fuel spray Kind of fuel used gas oil
Crank Shaft, dia. of journals as per Rule 150 mm. Crank pin dia. 150 mm. Crank Webs Mid. length breadth 200 mm. Thickness parallel to axis 88 mm. Thickness around eyehole
Wheel Shaft, diameter as per Rule 150 mm. Intermediate Shafts, diameter as per Rule 110 mm. Thrust Shaft, diameter at collars as per Rule 140 mm.
Screw Shaft, diameter as per Rule 110 mm. Is the tube screw shaft fitted with a continuous liner No
Liners, thickness in way of bushes as per Rule 7/16" Thickness between bushes as per Rule Is the after end of the liner made watertight in the
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
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
of the tube shaft No Length of Bearing in Stern Bush next to and supporting propeller 18 1/2"
Propeller, dia. 5'4" Pitch No. of blades 3 Material bronze whether Moveable No Total Developed Surface 1 sq. feet
Method of reversing Engines by means of both wheels Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication
Pressure Thickness of cylinder liners 23 mm. Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
conducting material water 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. One Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Ge Pumps worked from the Main Engines, No. One Diameter 75 mm. Stroke 70 mm. Can one be overhauled while the other is at work Yes
Pumps connected to the Main Bilge Line { No. and Size one Centrifugal pump 3 1/2 hp. 1000 lbs. capacity, 1400 lbs. 6.1.28
How driven 7000 rev. per min.
Lubricating Oil Pumps, including Spare Pump, No. and size One both wheel pumps and one spare
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 4
Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one

All the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes. Yes Are the Bilge Suctions in the Machinery Spaces
from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

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

At pipes pass through the bunkers. None How are they protected

At pipes pass through the deep tanks. Yes Have they been tested as per Rule

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
apartment to another. Is the Shaft Tunnel watertight. None Is it fitted with a watertight door worked from

In 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. One per set No. of stages Two Diameters 15 x 135 mm. Stroke 70 mm. Driven by Main Engines

Auxiliary Air Compressors, No. One No. of stages Two Diameters Stroke 100 mm. Driven by

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

Sucking Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule
as fitted

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

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

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

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. Two per set Total cubic capacity 250 litres each Internal diameter 450 mm. thickness 12 mm.

Seamless, lap welded or riveted longitudinal joint lap welded Material Mild Steel Range of tensile strength 37.5 kg. sq. mm. Working pressure by Rules 25 kg. p. sq. cm.

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting 13. 1. 1928.
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR as given in the Rules and according to Secretary's letter of 23rd. December 1927.

The foregoing is a correct description,

Motorenfabrik Deutz

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 18. I. 28, 15. II. 28, 21. II. 28 and 23. II. 28 and 27. III. 28 (Starting for Receivers)
During erection on board vessel - - -
Total No. of visits Four.

Dates of Examination of principal parts—Cylinders 18. I. 28. Covers 18. I. 28. Pistons 18. I. 28. Rods 18. I. 28. Connecting rods 18. I. 28.

Crank shaft 31. II. 27. Flywheel shaft Thrust shaft 31. II. 27. Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material S.M. Steel Identification Mark 7. 2. 3677, 3678 Flywheel shaft, Material Identification Mark

Thrust shaft, Material S.M. Steel Identification Mark 7. 2. 3679, 3680 Intermediate shafts, Material Identification Marks

Tube shaft, Material Identification Mark 3681, 3682 Screw shaft, Material Identification Mark

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

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. Both sets are built in accordance with the approved plans and the requirements embodied in the Secretary's letter of 13. 1. 1928 and 23rd. December 1927 and otherwise in accordance with the requirements of the Rules. Materials and the workmanship are of the best quality, the outfit is ample. Both engines have been tested under full working conditions for about six hours on the trial stage in machine shop and have given full satisfaction. After trials all working parts have been opened up and were found on examination in good condition. This machinery has been built under special survey, is eligible in my opinion for notation of **CLASS 3** and will be forwarded to Queensferry near Chester, where they are intended to be fitted on board the Oil Tanker: 535. Mems: Abdela Mitchell's Shipyard.

The amount of Entry Fee ... £ 3 : 0 :

Special £ 28 : 10 : When applied for, 6. II. 1928.

Donkey Boiler Fee £ 4 : 10 : When received, 2/5/28.

Travelling Expenses (if any) £ 4 : 10 :

Committee's Minute

Assigned

Engine Surveyor to Lloyd's Register of Shipping.



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