

REPORT ON OIL ENGINE MACHINERY.

No. 1578.
17 NOV 1933

Received at London Office

Date of writing Report 13. 11. 1933 When handed in at Local Office 14. 11. 1933 Port of Bremen

No. in Survey held at 1430 Reg. Book. Date, First Survey 13th June 1933 Last Survey 11th November 1933 Number of Visits 64Tons { Gross
Neton the Single
Twin
Triple
Quadruple } Screw vessel

Built at Budapest, Hungary

By whom built Ganz & Co.

Yard No. 1430 When built 1933

Engines made at Augsburg

By whom made Maschinenfabrik Augsburg-Nürnberg Engine No. 760 When made 1933

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 21600

Owners Anglo-Saxon Petroleum Co.
(Rumania Orsay)

Port belonging to Linz (Austria)

Nom. Horse Power as per Rule 241

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended river Danube.

OIL ENGINES, &c.—Type of Engines 2 x 96 1/2 50 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 48 atm Diameter of cylinders 365 mm Length of stroke 500 mm No. of cylinders 2 x 6 No. of cranks 2 x 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 456 mm Is there a bearing between each crank yes

Revolutions per minute 305 Flywheel dia. 1200 mm Weight 2080 kg Means of ignition air lamp Kind of fuel used Gasoil, on test bed.

Crank Shaft, dia. of journals as per Rule 210 as fitted 220 mm Crank pin dia. 220 mm Crank Webs Mid. length breadth 360 mm Mid. length thickness shrunk Thickness parallel to axis 115 mm Thickness around eyehole

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

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 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 the tube

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

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

Method of reversing Engines directly, by means of cam Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

forced Thickness of cylinder liners 27 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material cooled 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. 2 x 1 worked from main engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. 1 Diameter 130 mm Stroke 210 mm Can one be overhauled while the other is at work yes

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 2 x 1 double pump, 3, 3 ch/h each, worked from main engines.

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

In 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 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

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

Are they fixed sufficiently 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

If 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 x 1 No. of stages 2 Diameters 145/45 L Stroke 150 mm Driven by main engines

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

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted 105 mm No. 491450 434 16/22 Position —

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 and cleaned yes Is a drain fitted at the lowest part of each receiver yes

High Pressure Air Receivers, No. 2 Cubic capacity of each 1100 ltr Internal diameter 800 mm thickness 17 mm

Seamless, lap welded or riveted longitudinal joint riveted Material S.M. Steel Range of tensile strength 44-50 kg/cm² Working pressure by Rules Actual 30 atm

Starting Air Receivers, No. 1 Total cubic capacity 58 ltr Internal diameter 249 mm thickness 9 mm

Seamless, lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 45-52 kg/cm² Working pressure by Rules Actual 30 atm

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 *yes, letters 20.5.33, 19.6.33, 11.8.33, 26.9.33*
(If not, state date of approval)Receivers *29.6.33, 14.6.32*

Separate Tanks

Donkey Boilers

General Pumping Arrangements *27.12.33*

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes.*

State the principal additional spare gear supplied

Machinery being assigned was description

Manufacturer.

Dates of Survey while building

During progress of work in shops - *13.21.29. June, 3.4.6.14.18.24.28 July, 7.9.14.16.17.18.19.21.22.24.25.29.30.31 August, 1.2.4.5.6.7.8.12.13.14.15.18.21.25.26.28.29.30 September, 3.4.9.11.12.13.14.16.17.18.23.24.28.31 October, 2.3.6.7.8.11. November 1933*

During erection on board vessel - - -

Total No. of visits *64*

Dates of Examination of principal parts - Cylinders *21.8.33* Covers *18.7.33* Pistons *7.8.33* Rods *13.10.33* Connecting rods *25/31.8.33*

Crank shaft *16/17.8.33* aux. eng. crank *10.9.33, 8.4.33* Thrust shaft *8.4.33* Intermediate shafts *8.4.33* Tube shaft

Screw shaft *8.11.33* Propeller *8.11.33* Stern tube *8.11.33* Engine seatings *8.11.33* Engines holding down bolts *11.12.13.8.33*

Completion of fitting sea connections *11.12.13.8.33* Completion of pumping arrangements *11.12.13.8.33* Engines tried under working conditions *6.7.8.11.33*

Crank shaft, Material *9.4. Steel* Identification Mark *LLOYD'S* Flywheel shaft, Material *13.10.33* Identification Mark

Thrust shaft, Material *13.10.33* Identification Mark *13.10.33* Intermediate shafts, Material *13.10.33* Identification Marks

Tube shaft, Material *13.10.33* Identification Mark *13.10.33* Screw shaft, Material *13.10.33* Identification Mark

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

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

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

If so, state name of vessel

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

These heavy oil engines have been constructed under special survey in accordance with the Society's Rules and Regulations as well as with the approved plans and instructions thereto. The materials used in the construction are good and the workmanship is satisfactory.

The engines have been tested on the makers test bed during about 9 hours at normal load and 2 hours at 10% and 20% overload in the presence of the undersigned and were found to work satisfactorily.

In my opinion the vessel for which these engines are intended will be eligible for the notation of *+* LMC [with date] when the whole machinery has been fitted satisfactorily on board and tried in full working conditions.

The crankshaft of the starboard engine has been tested by the Green. Lloyd surveyors. See London letter *14.8.33*

The amount of Entry Fee

Inclusive:

Special

Free See

Donkey Boiler Fee

Hall Rpt.

Travelling Expenses (if any) £

When applied for,

Please see Secretary's letter to Engineering Office, dated 30.5.33.

When received,

19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI. 8 JUN 1934

See Tri. Rpt. 10408



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