

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 Lugstung Date, First Survey 13th June 1933 Last Survey 11th November 1933
Reg. Book. Number of Visits 64

on the Single } Screw vessel
Twin }
Triple }
Quadruple }

Built at Budapest, Hungary By whom built Ganz & Co. Yard No. 1430 When built 1933
 Engines made at Lugstung By whom made Mach.-fabrik Lugstung-Minuberg Engine No. 760 When made 1933
 Donkey Boilers made at _____ By whom made _____ Boiler No. _____ When made _____
 Brake Horse Power 2400 Owners Anglo-Saxon Petroleum Co. (Rumania Orszag) 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. 14 3/8" 19 1/2"

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 atms Diameter of cylinders 365 7/8" Length of stroke 500 7/8" 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 7/8" Is there a bearing between each crank yes
 Revolutions per minute 305 Flywheel dia. 1200 7/8" Weight 2080 kg Means of ignition air lamp ign. Kind of fuel used Gas oil, on feet bed.
Crank Shaft, dia. of journals as per Rule 210 as fitted 220 7/8" Crank pin dia. 220 7/8" Crank Webs Mid. length breadth 360 7/8" Kind of fuel used Gas oil, on feet bed. Thickness parallel to axis 115 7/8"
 as fitted _____ Mid. length thickness _____ Thickness around eye-hole _____
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 _____

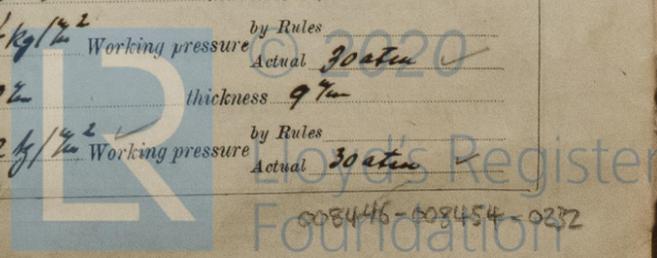
Propeller, dia. _____ Pitch _____ No. of blades _____ Material _____ whether Moveable _____ Total Developed Surface _____ sq. feet
Method of reversing Engines directly, by means of cam Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced
 Thickness of cylinder liners 27 7/8" Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material water 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 7/8" Stroke 210 7/8" 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 1/2" Stroke 150 7/8" 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 7/8" No. 49/450 W 34 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 7/8" thickness 17 7/8"
 Seamless, lap welded or riveted longitudinal joint riveted Material S.M. Steel Range of tensile strength 44-47 1/2 kg/cm² Working pressure _____ Actual 30 atms
Starting Air Receivers, No. 1 Total cubic capacity 58 ltr Internal diameter 249 1/2" thickness 9 7/8"
 Seamless, lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 45-52 kg/cm² Working pressure _____ Actual 30 atms



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, 27.12.33*
(If not, state date of approval)

Receivers *29.6.33, 14.6.32*

Separate Tanks

Oil Fuel Burning Arrangements

Donkey Boilers

General Pumping 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 inspection.

J. Murray 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*

Total No. of visits *64*

Dates of Examination of principal parts - Cylinders *21.8.33* Covers *18.7.33* Pistons *7.8.33, 13.10.33, 8.4.33* Rods Connecting rods *25/31.8.33*

Crank shaft *16/17.8.33, 13.10.33, 8.11.33* aux. eng. crank. Engine shaft *18.9.33, 8.4.33* Thrust shaft Intermediate shafts Tube shaft

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

Completion of fitting sea connections Completion of pumping arrangements *1) F.S. 17.8.33, 19.7.33, V.S. 15.7.33, 16.8.33* Engines tried under working conditions *6.7.8.11.33*

Crank shaft, Material *S.M. steel* Identification Mark *LLOYD'S* 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.

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 \oplus 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 *Half Rpt.*
Travelling Expenses (if any) £ : : 19

When applied for, Please see Secretary's Office, Letter F to Shipping Office, dated 30.5.33. When received, 29/7/34

L. Stroub
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned

See Tri. Rpt. 10408

