

REPORT ON OIL ENGINE MACHINERY.

No. 7717

Received at London Office

Date of writing Report 29.9.27 When handed in at Local Office 8.10.27 Port of Trieste

No. in Survey held at Monfalcone Date, First Survey July 20 Last Survey Sep 27 1927
Reg. Book. Number of Visits 14

26971 on the ^{Single} ~~Triple~~ Screw vessel *La Playa*

Tons { Gross 3682
Net 2144

Built at *Birkenhead* By whom built *Lammell Fair & Co. B.* Yard No. 1400 When built 1923

Engines made at *Turin* By whom made *Friat S. G. M.* Engine No. 1401 When made 1927

Donkey Boilers made at By whom made Boiler No. 1403 When made 1923

Brake Horse Power 1000 SHP Owners *Unifruit S. S. Co. B.* Port belonging to *Glasgow*

Nom. Horse Power as per Rule 1926 Is Refrigerating Machinery fitted for cargo purposes *yes* Is Electric Light fitted *yes*

Trade for which vessel is intended *New York Fruit Trade*

see also Genoa Report
OIL ENGINES, &c. Type of Engines *Friat Diesel* 2 or 4 stroke cycle 2 Single or double acting *single*

Maximum pressure in cylinders 35 kg. cm² Diameter of cylinders 500 mm Length of stroke 500 mm No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 615 mm Is there a bearing between each crank *yes*

Revolutions per minute 250 Flywheel dia. — Weight — Means of ignition *compression* Kind of fuel used *diesel oil*

Crank Shaft, dia. of journals as per Rule 274 1/2 mm as fitted 285 mm Crank pin dia. 285 mm Crank Webs Mid. length breadth 420 shrunk Thickness parallel to axis — Mid. length thickness 160 Thickness around eyehole —

Flywheel Shaft, diameter as per Rule *Being fitted to original dynamo* Intermediate Shafts, diameter as per Rule — Thrust Shaft, diameter at collars as per Rule *Original* as fitted

Tube Shaft, diameter as per Rule — Screw Shaft, diameter as per Rule — Is the ^{tube} screw shaft fitted with a continuous liner *yes* as fitted

Bronze Liners, thickness in way of bushes as per Rule — Thickness between bushes as per rule — 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 —

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 —

Length of Bearing in Stern Bush next to and supporting propeller —

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

Method of reversing Engines *None* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes* Means of lubrication *Forced*

Thickness of cylinder liners 44 mm 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 *Funnel*

Cooling Water Pumps, No. 2 each 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. *none* Diameter — Stroke — Can one be overhauled while the other is at work —

Pumps connected to the Main Bilge Line { No. and Size *Original arrangement* How driven

Ballast Pumps, No. and size *Original* Lubricating Oil Pumps, including Spare Pump, No. and size *One rotary*

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 } *Original arrangement*

In Holds, &c. } *Original arrangement*

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *Original arrangement*

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 *yes* Are they fitted with Valves or Cocks *valves*

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 — 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 *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 *original* Is the Shaft Tunnel watertight *none* 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. *One* No. of stages 3 Diameters *LP 360-80 MP 360-32* Stroke 400 mm Driven by *Main Engine*

Auxiliary Air Compressors, No. *1 Original* No. of stages — Diameters *HP 80* Stroke — Driven by *Petrol motor*

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

Scavenging Air Pumps, No. *Two D. A.* Diameter 570 mm Stroke 480 mm Driven by *Main Engine*

Auxiliary Engines crank shafts, diameter as per Rule *Original* as fitted

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Safety valves on the Compressors*

Can the internal surfaces of the receivers be examined *yes* What means are provided for cleaning their inner surfaces *Plugs in ends*

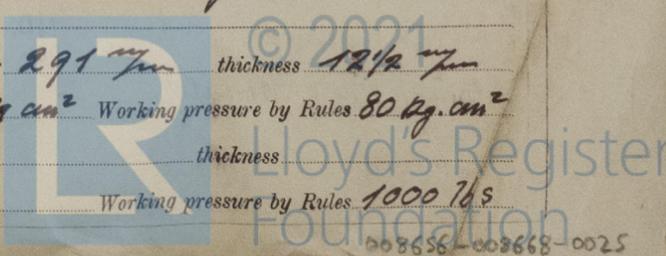
Is there a drain arrangement fitted at the lowest part of each receiver *yes*

High Pressure Air Receivers, No. *One each way* Cubic capacity of each 60 litres Internal diameter 291 mm thickness 12 1/2 mm

Seamless, lap welded or riveted longitudinal joint *Seamless* Material *SM steel* Range of tensile strength 45 kg cm² Working pressure by Rules 80 kg cm²

Starting Air Receivers, No. *Original* Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules 1000 lbs



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR 4 cylinder covers complete with all valves, springs and other fittings and in addition 4 needle valves. 4 cylinder liners complete. 2 pistons complete with all piston rings with studs & nuts. 10 telescopic cooling pipes. 1 set of spur wheels for the cam shaft. 2 sets of studs & nuts for cylinder covers. 2 iron head bearings with bolts & nuts. 1 bottom end bearing with bolts & nuts. 2 main bearing bolts & nuts. 2 sets of piston rings for each size used in the air compressor. 1 set of suction and delivery valve for each size used in the air compressor. 2 complete set of valves for the scavange pump. Working parts for 2 fuel pump. Additional water circulating pump. Assorted quantity of bolts, nuts and studs. Several lengths of pipes of each size used for fuel delivery and injection air pipes to power cylinders and air delivery from the compressors to the receivers.

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } See Genoa Report
 { During erection on board vessel - - } 1927 July 20, Aug 7, 22, Sep 7, 10, 13, 15, 19, 20, 22, 23, 25, 26, 27
 Total No. of visits Fourteen

Dates of Examination of principal parts—Cylinders — Covers — Pistons — Rods — Connecting rods —
 Crank shaft 20.7.27 Flywheel shaft — Thrust shaft — Intermediate shafts — Tube shaft —
 Screw shaft 10.9.27 Propeller 10.9.27 Stern tube — Engine seatings 7.7.27 Engines holding down bolts 7.9.27
 Completion of fitting sea connections 10.9.27 Completion of pumping arrangements — Engines tried under working conditions 27.9.27
 Crank shaft, Material S.M. Steel Identification Mark 7240 7241 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.

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.)

These engines were fitted on board at Monfalcone under special survey and satisfactorily tested under full working condition. In my opinion the machinery is eligible for the notation of + LMC - NE 9.27
 See also Genoa Report

Richard C. O'Connell

Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee	£	:	:	When applied for,
1/5 Special	1368.-			11. 10. 1927
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	410.-			19. 11. 1927
Sunday Committee's Minute	280.-			

R. P. P. P.
 Engineer Surveyor to Lloyd's Register of Shipping.

TUES. 8 NOV 1927

Assigned See Gen. rpt. No. 10040

