

REPORT ON OIL ENGINE MACHINERY.

No. 7546

7 JUN 1927

Date of writing Report: 19... When handed in at Local Office: May 30 1927 Port of: Trieste
 Date, First Survey: 5th Nov. 1925 Last Survey: 14th May 1927
 Number of Visits: 117

No. in Survey held at: 0735 on the Trieste Screw vessel "RIALTO"
 Tons: Gross 7098 Net 4498

By whom built: Stabilimento Tecnico Triestino No. 757 When built: 1927
 By whom made: Stabilimento Tecnico Triestino Engine No. 5086 When made: 1927
 Donkey Boilers made at: Annan By whom made: Cochran & Co. Annan Ltd Boiler No. 9728 When made: 1926
 Owners: Navigazione Libera Triestina S.A. Port belonging to: Venice
 Brake Horse Power: 489 Is Refrigerating Machinery fitted for cargo purposes: yes Is Electric Light fitted: yes

ENGINE, &c.—Type of Engines: Burmeister & Wain Diesel 2 or 4 stroke cycle 4 Single or double acting Single
 Working pressure in cylinders: 35 Kgp/cm² Diameter of cylinders: 740 mm Length of stroke: 1500 mm No. of cylinders: 6 No. of cranks: 6
 bearings, adjacent to the Crank, measured from inner edge to inner edge: 1004 mm Is there a bearing between each crank: yes
 Revolutions per minute: 108/110 Flywheel dia.: 2900 mm Weight: 18600 Kgp. Means of ignition: Compression Kind of fuel used: Diesel Oil
 Shaft, dia. of journals: as per Rule 470 mm as fitted 472 mm Crank pin dia.: 472 mm Crank Webs: Mid. length breadth 750 mm Thickness parallel to axis 310 mm
 as fitted 472 mm Mid. length thickness 310 mm Thickness around eyehole 195 mm
 Propeller Shaft, diameter: as per Rule 470 mm as fitted 472 mm Intermediate Shafts, diameter: as per Rule 317 mm as fitted 317 mm Thrust Shaft, diameter at collars: as per Rule 333 mm as fitted 333 mm
 Main Shaft, diameter: as per Rule 350 mm as fitted 352 mm Is the tube screw shaft fitted with a continuous liner: yes
 Liners, thickness in way of bushes: as per Rule 18 mm as fitted 19 mm Thickness between bushes: as per rule 13.75 mm as fitted 15.75 mm Is the after end of the liner made watertight in the boss: yes
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner: one length
 Does 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: filled whole length
 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: 1420 mm

Propeller, dia.: 4680 mm Pitch: 3730 mm No. of blades: 4 Material: Brass whether Moveable: no Total Developed Surface: 6.68 sq. feet
 Reversing Engines: Comp. Air Is a governor or other arrangement fitted to prevent racing of the engine when detached: yes Means of lubrication: both
 Thickness of cylinder liners: 58.5 to 41 mm Are the cylinders fitted with safety valves: yes Are the exhaust pipes and silencers water cooled or lagged with insulating material: both
 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine: led to funnel
 Water Pumps, No.: Two centrifugal Is the sea suction provided with an efficient strainer which can be cleared within the vessel: yes
 Pumps worked from the Main Engines, No.: Two Diameter: 160 mm Stroke: 220 mm Can one be overhauled while the other is at work: yes
 Connected to the Main Bilge Line: No. and Size: Two duplex @ 170 x 150 mm One duplex 300 x 300 mm
 How driven: Electric Motor

Pumps, No. and size: One duplex @ 300 x 300 mm Lubricating Oil Pumps, including Spare Pump, No. and size: 2 @ 30 tons per hour
 Independent means arranged for circulating water through the Oil Cooler: No oil cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces: 2 @ 90 mm; 5 @ 80 mm; 1 @ 80 mm in Tunnel; 1 @ 80 mm Tunnel Well; 2 @ 80 mm in Cofferdam
 etc. N°1-2 @ 80 mm; N°2-2 @ 80 mm; N°3-2 @ 80 mm; 2 Tank 4 @ 80 mm; N°5-4 @ 80 mm; N°6-2 @ 80 mm
 Main Power Pump Direct Suctions to the Engine Room Bilges, No. and size: 2 @ 90 mm and 1 @ 180 mm
 Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes: yes Are the Bilge Suctions in the Machinery Spaces easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges: yes
 Connections fitted direct on the skin of the ship: yes Are they fitted with Valves or Cocks: valves
 Are they 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
 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
 Do they pass through the bunkers: yes How are they protected: yes
 Do they pass through the deep tanks: none Have they been tested as per Rule: yes
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times: yes
 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: Upper deck
 Means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork: yes

Air Compressors, No.: One No. of stages: three Diameters: 160, 175, 260 mm Stroke: 610 mm Driven by: Main Eng. C.S.
 Auxiliary Air Compressors, No.: Three No. of stages: three Diameters: 79, 229, 322 mm Stroke: 220 mm Driven by: Aux. Diesel Eng.
 Auxiliary Air Compressors, No.: One No. of stages: two Diameters: 32 x 80 mm Stroke: 140 mm Driven by: Hand
 Suctioning Air Pumps, No.: None Diameter: — Stroke: — Driven by: —

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule: yes, on charging lines
 Internal surfaces of the receivers be examined: yes What means are provided for cleaning their inner surfaces: accessible for cleaning
 Is a drain arrangement fitted at the lowest part of each receiver: yes
 Pressure Air Receivers, No.: 3 Main + 3 Aux. Cubic capacity of each: 22500 lit. Internal diameter: 480 mm thickness: 20 mm
 as per Rule 161.5 mm as fitted 162 mm Internal diameter: 360 mm thickness: 15 mm
 lap welded or riveted longitudinal joint: Seamless Material: Steel Range of tensile strength: see Certs. Working pressure by Rules: 65
 Air Receivers, No.: Two Total cubic capacity: 30 m³ Internal diameter: 1968 mm thickness: 26.5 mm
 lap welded or riveted longitudinal joint: Riveted Material: Steel Range of tensile strength: 44/60.5 Kgp/cm² Working pressure by Rules: 25 Kgp/cm²

IS A DONKEY BOILER FITTED? *Yes* ✓
 PLANS. Are approved plans forwarded herewith for Shafting *Yes* ✓
 (If not, state date of approval)
 Donkey Boilers *Yes* ✓
 General Pumping Arrangements *Yes* ✓
 If so, is a report now forwarded? *Yes* ✓
 Receivers *With Rpt. on Fella* Separate Tanks
 (Ref. N: 7074)
 Oil Fuel Burning Arrangements *With Rpt. on Fella* 24.1

SPARE GEAR *See attached list.*

DUAL CLASS
 L.R. & R.

The foregoing is a correct description,
Stabilimento Tecnico Triestino
 Fabbrica macchine S. Andrea - Trieste

Manufacturer.

Aut. Survey *See attached list*

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - -
 Total No. of visits *117*

Dates of Examination of principal parts—Cylinders *24.1.27* Covers *25.1.27* Pistons *22.2.27* Rods *16.3.26 to 2.8.26* Connecting rods *2.8.26*
4.3.27 *4.3.27* *8.3.27* *30.4.26* *5*
 Crank shaft *3.4.26* Flywheel shaft *30.4.26* Thrust shaft *30.4.26* Intermediate shafts *17.5.26* Tube shaft
 Screw shaft *30.4.26* Propeller *4.5.27* Stern tube *22.3.27* Engine seatings *25.3.27* Engines holding down bolts *10.6*
 Completion of fitting sea connections *20.12.26* Completion of pumping arrangements *10.5.27* Engines tried under working conditions *12.5*
 Crank shaft, Material *S.M.S. Steel* Identification Mark *176 & 177 N.G.* Flywheel shaft, Material *S.M.S. Steel* Identification Mark *265*
 Thrust shaft, Material *S.M.S. Steel* Identification Mark *206 N.G.* Intermediate shafts, Material *S.M.S. Steel* Identification Marks *202, 20, 214, 21*
 Tube shaft, Material - Identification Mark - Screw shaft, Material *S.M.S. Steel* Identification Mark *200*

Is the flash point of the oil to be used over 150° F. *Yes* ✓
 Is this machinery duplicate of a previous case *Similar to M.V. "Feltre" - Pri. Rpt.*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been constructed under Special Survey in accordance with the Rules and Approved Plans; the materials and workmanship are good. The machinery has been efficiently installed on board the vessel, examined under working conditions and found satisfactory, and is eligible, in our opinion, for classification, and to have the record L.M.C. 6.27 - C.L. in the Register.

The auxiliary Engines fitted on board this vessel are as follows:-
 Port Side Forward - N: 5097 Gray N: 7295
 " " Aft - N: 5026 (Removed from m.v. "Fella", overhauled & refitted).
 Starb. Side - N: 5086 Gray N: 7296.
 Dentz Engine - N: 1931.

The amount of Entry Fee ... *Lire 540.* When applied for, *June 4 1927*
 Special ... *Lire 11.529.*
 Donkey Boiler Fee *See Glasgow Rpt. 45525* When received, *24.10.19*
 Travelling Expenses (if any) *Lire 200.*

For S.O. Common Rules
M. Gordon & J. Lockney
 Engineer Surveyor to Lloyd's Register of Ships

Committee's Minute
 Assigned

WED. 8 JUN 1927
5.24
All Engines
5.10.11

TUES. 26 JUL 1927
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Certificate (if required) to be sent to Trieste Office
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)