

REPORT ON OIL ENGINE MACHINERY.

No. 7546

7 JUN 1927

Date of writing Report.

10

When handed in at Local Office

May 30 1927 Port of Trieste

Received at London Office

To. in Survey held at

eg. Book.

Date, First Survey

5th Nov. 1925

Last Survey

14th May 1927

Number of Visits

117

0735 on the ^{Single} ~~Double~~ ^{Triple} ~~Quadruple~~ Screw vessel

"RIALTO"

Tons ^{Gross} 7098 ^{Net} 4498

Built at Trieste

By whom built Stabilimento Tecnico Triestino Card No. 757 When built 1927

Engines made at Trieste

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

Brake Horse Power

Owners Navigazione Libera Triestina S. A. Port belonging to Venice

Horse Power as per Rule 489 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes

for which vessel is intended

ENGINES, &c.—Type of Engines Burmeister & Wain Diesel 2 or 4 stroke cycle 4 Single or double acting SingleMean pressure in cylinders 35 Kp./cm² Diameter of cylinders 740 mm Length of stroke 1500 mm No. of cylinders 6 No. of cranks 6Bearings, adjacent to the Crank, measured from inner edge to inner edge 1004 mm Is there a bearing between each crank yesRevolutions per minute 108/110 Flywheel dia. 2900 mm Weight 18600 Kp. Means of ignition Compression Kind of fuel used Diesel OilShaft, dia. of journals as per Rule 470 mm Crank pin dia. 472 mm Crank Webs Mid. length breadth 750 mm Thickness parallel to axis 310 mmas fitted 472 mm as fitted 472 mm as fitted 317 mm as fitted 317 mm as fitted 310 mm as fitted 195 mmPropeller Shaft, diameter as per Rule 470 mm Intermediate Shafts, diameter as per Rule 317 mm Thrust Shaft, diameter at collars as per Rule 333 mmas fitted 472 mm as fitted 317 mm as fitted 333 mmShaft, diameter as per Rule Screw Shaft, diameter as per Rule 360 mm Is the tube shaft fitted with a continuous liner yesas fitted as fitted 352 mm as per rule 13.75 mm as fitted 16.75 mm Is the after end of the liner made watertight in theboss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner one lengthLiners, thickness in way of bushes as per Rule 18 mm Thickness between bushes as per rule 13.75 mm Is the after end of the liner made watertight in theas fitted 19 mm as fitted 16.75 mm as fitted 16.75 mm as fitted 16.75 mm Is the after end of the liner made watertight in thetube shaft no Length of Bearing in Stern Bush next to and supporting propeller 1420 mmPitch 3730 mm No. of blades 4 Material Brass whether Moveable no Total Developed Surface 6.68 sq. feetReversing Engines Comp. Air Is a governor or other arrangement fitted to prevent racing of the engine when detached yes Means of lubricationThickness 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 withinsulating 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 funnelWater Pumps, No. Two centrifugal Is the sea suction provided with an efficient strainer which can be cleared within the vessel yesPumps worked from the Main Engines, No. Two Diameter 160 mm Stroke 220 mm Can one be overhauled while the other is at work yesConnected to the Main Bilge Line { No. and Size Two duplex @ 170 x 150 mm One duplex 300 x 300 mmHow driven Electric Motor Lubricating Oil Pumps, including Spare Pump, No. and size 2 @ 30 tons per hourIndependent means arranged for circulating water through the Oil Cooler No oil cooler Suctions, connected to both Main Bilge Pumps and Auxiliary BilgeNo. 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 Cofferdametc. N°1-2 @ 80 mm; N°2-2 @ 80 mm; N°3-2 @ 80 mm; Q Tank 4 @ 80 mm; N°5-4 @ 80 mm; N°6-2 @ 80 mmSuction Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 @ 90 mm and 1 @ 180 mmBilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaceseasily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yesConnections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks valvesand 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 aboveeach 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 yesHow are they protected yesHow are they protected yesHave they been tested as per Rule yesCocks, 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

to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Upper deck

vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. One No. of stages three Diameters 160, 675, 760 mm Stroke 610 mm Driven by Main Eng. C. S.Auxiliary Air Compressors, No. Three No. of stages three Diameters 79, 298, 322 mm Stroke 220 mm Driven by Aux. Diesel Eng.Auxiliary Air Compressors, No. One No. of stages two Diameters 32, 80 mm Stroke 140 mm Driven by HandFilling Air Pumps, No. None Diameter — Stroke — Driven by —Engines crank shafts, diameter as per Rule 161.5 mm as fitted 162 mmRECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes, on charging linesInternal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces accessible for cleaningA drain arrangement fitted at the lowest part of each receiver yes 2 @ 500 lit. 480 mm 20 mmPressure Air Receivers, No. 3 Main + 3 Aux. Cubic capacity of each 1 @ 250 " 3 @ 30 " Internal diameter 360 " thickness 15 mmlap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength see Certs. Working pressure by Rules 65Air Receivers, No. Two Total cubic capacity 30 m³ Internal diameter 1968 mm thickness 26.5 mmlap welded or riveted longitudinal joint Riveted Material Steel Range of tensile strength 44/60.5 Kp./cm² Working pressure by Rules 25 Kp./cm²

IS A DONKEY BOILER FITTED? *Yes.*
PLANS. Are approved plans forwarded herewith for Shafting *Yes.*
Donkey Boilers *Yes.* General Pumping Arrangements *Yes.*
SPARE GEAR *See attached list.*

If so, is a report now forwarded? *Yes.*
Receivers *With Rpt. on Fella* Separate Tanks *24.1*
Oil Fuel Burning Arrangements *With Rpt. on Fella*

DUAL CLASS
L.R. & R.

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

Manufacturer.

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*
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 *10.5.27*
Completion of fitting sea connections *20.12.26* Completion of pumping arrangements *10.5.27* Engines tried under working conditions *12.5.27*
Crank shaft, Material *S.M. 9. Steel* Identification Mark *176 & 177 N.G.* Flywheel shaft, Material *S.M. 9. Steel* Identification Mark *265*
Thrust shaft, Material *S.M. 9. Steel* Identification Mark *205 N.G.* Intermediate shafts, Material *S.M. 9. Steel* Identification Marks *202, 203, 204, 205*
Tube shaft, Material -- Identification Mark -- Screw shaft, Material *S.M. 9. 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" Tri. 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 have the record L.M.C. 5.27 - C.L. in the Register.

The auxiliary Engines fitted on board this vessel are as follows:-
Port Side Forward - N° 5087 Gray N° 7295
" " Aft - N° 5026 (Removed from m.v. "Fella", overhauled & refitted)
Starb. Side - N° 5086 Gray N° 7296
Dantz Engine - N° 1831

The amount of Entry Fee ... *Lire 540.*
Special ... *Lire 11.529.*
Donkey Boiler Fee *Lire 455.25*
Travelling Expenses (if any) *Lire 200.-*

When applied for, *June 4 1927*
When received, *24.10.1927*

Committee's Minute
Assigned

For S.O. Common Rules
M.B. Foster & J. Lockney
Engineer Surveyor to Lloyd's Register of Shipping

TUES. 26 JUL 1927
FRI. 11 NOV 1927

Oil Engines 5.24
5.10.11

Lloyd's Register Foundation