

REPORT ON OIL ENGINE MACHINERY.

No. 11818

Received at London Office SEP 27 1937

20.9.37 When handed in at Local Office 23.9.37 Port of Trieste
 Date, First Survey May 13 Last Survey Sep 10 1937
 Number of Visits 22
 Survey held at Monfalcone
 Book 4816 on the Single Twin Triple Quadruple Screw vessel Triella
 Tons Gross 6072 Net 3748
 Built at Trieste By whom built Stabilim. Ferraro Yard No. 745 When built 1926
 Engines made at Turin By whom made FIAT Stah. Grandi Motori Engine No. 2403 When made 1937
 Monkey Boilers made at Glasgow By whom made Lochran & Co. Ltd. Boiler No. 9254 When made 1925
 Brake Horse Power 4550 Owners Italia S. A. di Navigaz. Port belonging to Venice
 Nom. Horse Power as per Rule 1328 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes
 Trade for which vessel is intended

ENGINES, &c.—Type of Engines FIAT DL 646 Solid Inject. 2 or 4 stroke cycle 2 Single or double acting Double
 Maximum pressure in cylinders 35 Kg/cm² Effective Pressure 4.27 Kg/cm² Diameter of cylinders 640 mm Length of stroke 1160 mm No. of cylinders 6 No. of cranks 6
 Distance between adjacent bearings, measured from inner edge to inner edge 928 mm Is there a bearing between each crank yes
 Revolutions per minute 115-130 Flywheel dia. 2 x Weight 60000 kg Means of ignition Compr. Kind of fuel used Diesel oil
 Crank Shaft, dia. of journals as per Rule 439.9 as fitted 450 Crank pin dia. 450 mm Crank Webs Mid. length breadth — shrunk Thickness parallel to axis 290 mm Mid. length thickness — Thickness around eye hole 242 mm
 Flywheel Shaft, diameter as per Rule — as fitted — Intermediate Shafts, diameter as per Rule 336.3 mm as fitted 366 mm Thrust Shaft, diameter at collars as per Rule 353 mm as fitted 450 mm
 Main Shaft, diameter as per Rule — as fitted — Screw Shaft, diameter as per Rule 368.6 mm as fitted 405 mm Is the screw shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per Rule 18.8 mm as fitted 20 mm Thickness between bushes as per Rule 14.1 mm as fitted 18 mm 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 one length
 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
 If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 1600 mm
 Propeller, dia. 4650 mm Pitch 4060 mm No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 8.9 m²
 Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when disengaged yes Means of lubrication forced
 Thickness of cylinder liners upper 48.25 lower 40.75 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 —
 Cooling Water Pumps, No. 2 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. 1 Diameter 50 T/h Stroke — Can one be overhauled while the other is at work —
 Pumps connected to the Main Bilge Line No. and Size one 50 T/h Two independent 40 T/h One Ballast 200 T/h How driven one by Main Engine Three by Electric motors
 Is the cooling water led to the bilges no If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements —
 Ballast Pumps, No. and size 1 a 200 T/h, 1 a 40 T/h Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 a 150 T/h each
 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 5 a 3 1/4" and 2 a 3 1/2" Two from Cofferdam a 3 1/4" In Pump Room —
 Holds, &c. Original arrangement plus one 2" suction from the new Cofferdam fr. 33-36
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 a 3 1/4" and 1 a 7"
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces
 from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes
 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 above
 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 none 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 yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Deck above
 On 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. none No. of stages — Diameters — Stroke — Driven by —
 Original 3 one on each No. of stages 3 Diameters 322 x 285 x 79 Stroke 220 Driven by 2 Cyl. Diesel
 Auxiliary Air Compressors, No. 3 Aux. Engine No. of stages 2 Diameters 80 x 32 Stroke 140 Driven by hand
 Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 80 x 32 Stroke 140 Driven by hand
 Sucking Air Pumps, No. 2 each with 3 cyl. in Tandem Diameter 880 mm Stroke 850 mm Driven by Main Eng.
 Double Acting
 Auxiliary Engines crank shafts, diameter as per Rule 100 mm, 161 1/2 old No. 2 new 3 old (original) as fitted 110 " 162 " Position new, one each side in E.R. old, one starboard one port in E.R.

W36-0022

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *as originally approved*

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. *none* Cubic capacity of each — Internal diameter — thickness —

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

Starting Air Receivers, No. *2 original* Total cubic capacity *30 m³* Internal diameter *1953 mm* thickness *26 1/2 mm*

Seamless, lap welded or riveted longitudinal joint *riveted* Material *SM5* Range of tensile strength *44-50 kg* Working pressure by Rules *26 1/2 mm* Actual *25*

IS A DONKEY BOILER FITTED? *yes* If so, is a report now forwarded? *yes*

Is the donkey boiler intended to be used for domestic purposes only —

PLANS. Are approved plans forwarded herewith for Shafting *yes* Receivers *Original* Separate Fuel Tanks *25.3.37*

Donkey Boilers *See Genoa Report* General Pumping Arrangements *original* Pumping Arrangements in Machinery Space *12.6.36*

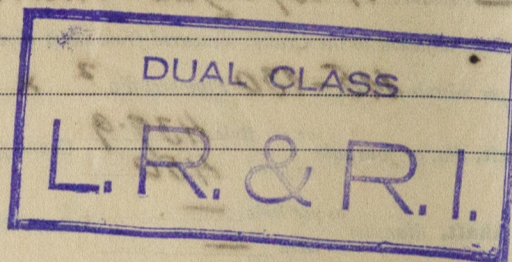
Oil Fuel Burning Arrangements —

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes except the set of rods for Mischel*

State the principal additional spare gear supplied *with it is stated will be placed on board at 9*

none



The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } *Please see Genoa Report No 14870*
{ During erection on board vessel -- } *1937 May 13. 17. 18, June 11. 14. 16. July 3. 8. 10. 16. 19. 21. 27. Aug 3. 6. 12. 18. 20. 23. 26, Sep 3. 10.*
Total No. of visits *twenty two*

Dates of Examination of principal parts—Cylinders *8.7.37* Covers *8.7.37* Pistons *8.7.37* Rods *8.7.37* Connecting rods *8.7.37*

Crank shaft *10.7.37* Flywheel shaft — Thrust shaft *10.7.37* Intermediate shafts *10.7.37* Tube shaft —

Screw shaft *16.6.37* Propeller *11.6.37* Stern tube *14.6.37* Engine seatings *25.6.37* Engines holding down bolts *10.7.37*

Completion of fitting sea connections *16.6.37* Completion of pumping arrangements *18.8.37* Engines tried under working conditions *10.9.37*

Crank shaft, Material *SM5* Identification Mark *10418 JL 3.2.36* Flywheel shaft, Material — Identification Mark —

Thrust shaft, Material *SM5* Identification Mark *5278 JQ 3.7.36* Intermediate shafts, Material *SM5* Identification Marks *464, 465 ASM*

Tube shaft, Material — Identification Mark — Screw shaft, Material *SM5* Identification Mark *5365 JQ 10.10.37*

Is the flash point of the oil to be used over 150° F. *Spare 462 ASM 25.7*

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

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *yes* If so, have the requirements of the Rules been complied with *yes*

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 *no* If so, state name of vessel —

General Remarks (State quality of workmanship, opinions as to class, &c.) *Please see also Genoa Rept. 14870*

The machinery of this vessel has been constructed at Turin under special survey and fitted on board Montauque in place of the original B&W int. comb. New engine seats have been made under special survey in accordance with the Rules and approved plans. The pumping arrangement in machinery space and the piping arrangement for other services have been adapted to suit the services of the new engines. The machinery has been tested under working condition and found to be in order and in my opinion is eligible to have the notation of + NE 9.37

The amount of Entry Fee .. £ : : When applied for, *20/9/1937*
PT Special ... £ *2516* : :
Donkey Boiler Fee ... £ : : When received, *29/12/1937*
Travelling Expenses (if any) *£830* : : *4/1/38*

Committee's Minute

Assigned *See Tns 11818*

