

REPORT ON OIL ENGINE MACHINERY.

No. 16566

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Date of writing Report 27/9/47 1947 When handed in at Local Office 27/9/47 Port of Rome
 in Survey held at Rome Date, First Survey 27/5/47 Last Survey 27/9/47
 on the Single Screw vessel M/S. ARIETE. (ex REAL II-47). Tons {Gross 5069
 Net 2716
 Built at STOCKHOLM. By whom built M.V. AKTIEB. SÖTEBORES. Yard No. ✓ When built 1915
 Engines made at STOCKHOLM. By whom made AKT. DIESEL & MOTORER Engine No. ✓ When made 1915
 Monkey Boilers made at STOCKHOLM. By whom made AKT. DIESEL & MOTORER Boiler No. ✓ When made 1915
 Brake Horse Power 1660 EACH. Owners TRANSOCEANICA ITALIANA EXPORT. Port belonging to ROMA
 m. Horse Power as per Rule 1208 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES
 Trade for which vessel is intended FOR OPEN SEA SERVICE.
 L. ENGINES, &c. — Type of Engines OIL ENGINE TYPE POLAR. 2 or 4 stroke cycle 2 Single or double acting SINGLE.
 Maximum pressure in cylinders 38 1/2 lb./sq. in. Diameter of cylinders 600 mm. Length of stroke 900 mm. No. of cylinders 6 No. of cranks 6
 Mean Indicated Pressure 5.6 lb./sq. in. Is there a bearing between each crank YES.
 Span of bearings, adjacent to the crank, measured from inner edge to inner edge 900 mm. Kind of fuel used DIESEL OIL
 revolutions per minute 120. Flywheel dia. 2500 mm. Weight 6500 kg. Means of ignition FORCED Kind of fuel used DIESEL OIL
 Crank shaft, Solid forged dia. of journals AS APPROVED Crank pin dia. 390 mm. Crank webs AS APPROVED Mid. length breadth 520 mm. Thickness parallel to axis ✓
 Flywheel Shaft, diameter AS APPROVED Intermediate Shafts, diameter AS APPROVED Thrust Shaft, diameter at collars AS APPROVED
 Tube Shaft, diameter AS APPROVED Screw Shaft, diameter AS APPROVED Is the shaft fitted with a continuous liner WITH OUT LINER.
 Bronze Liners, thickness in way of bushes AS APPROVED Thickness between bushes AS APPROVED 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 tube shaft APPROX If so, state type CEDERVAL Length of bearing in Stern Bush next to and supporting propeller 1400 mm.
 Propeller, dia. 3600 mm. Pitch 3500 mm. No. of blades 4 Material CAST IRON whether moveable NO Total developed surface 4.2 m² sq. feet
 Method of reversing Engines DIRECT. Is a governor or other arrangement fitted to prevent racing of the engine when declutched GOVERNOR Means of
 lubrication FORG Thickness of cylinder liners 150 mm. Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled
 or lagged with non-conducting material ✓ 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. 4 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. 2 Diameter 185 mm. Stroke 296 mm. Can one be overhauled while the other is at work NO
 Pumps connected to the Main Bilge Line {No. and size 2 x 165 x 135 x 160;
 How driven STEAM.
 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, 165 x 135 x 160 Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 - φ 75 mm x 296 mm
 Are two independent means arranged for circulation of oil through the Oil Cooler YES Suctions, connected to both main bilge pumps and auxiliary
 bilge pumps, No. and size: — In machinery spaces 1 @ φ 75 mm 1 DIRECT @ φ 215 mm In pump room 2 @ 75 mm.
 In holds, &c. Hold N=1 - 2 (1 @ φ 75 + 1 @ φ 102 mm) Cofferdam 1 @ 102 mm, Cuff. aft. 1 @ φ 102 mm.
 Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 @ 75 mm & 1 @ φ 905 mm.
 Are all the bilge suction pipes in holds and bilge fitted with strum-boxes YES Are the bilge suction pipes 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. YES Are they fitted with valves or cocks YES Are they fixed
 Are all Sea Connections fitted direct on the skin of the Ship YES Are the overboard discharges above or below the deep water line ABOVE
 sufficiently high on the ship's side to be seen without lifting the platform plates YES Are the blow off cocks fitted with a spigot and brass covering plate YES
 Are they each fitted with a discharge valve always accessible on the plating of the vessel YES How are they protected —
 What pipes pass through the bunkers NONE. Have they been tested as per Rule —
 What pipes pass through the deep tanks NONE Are they fitted with valves or cocks YES Are they fixed
 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 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. TWO No. of stages III diameters 630/560/116 stroke 560 mm. driven by MAIN ENG.
 Auxiliary Air Compressors, No. TWO No. of stages II diameters 500/310 stroke 510 mm. driven by MAIN ENG.
 Small Auxiliary Air Compressors, No. ONE No. of stages III diameters 380/250 stroke 190 mm. driven by AUX MOTOR.
 What provision is made for first charging the air receivers — diameters 182/150/50 stroke 204/116 driven by HAND.
 Scavenging Air Pumps, No. 4. diameter 650 mm. stroke 510 mm. driven by MAIN ENGINE.
 Auxiliary Engines crank shafts, diameter ONE as per Rule 150 mm. No. 156 mm. Position ENG. ROOM. FORWARD.
 Have the auxiliary engines been constructed under special survey NO Is a report sent herewith —

AIR RECEIVERS:—Have they been made under survey NO State No. of report or certificate _____
Is each receiver, which can be isolated, fitted with a safety valve as per Rule EACH RECEIVER CAN BE INS. WITH S. VALVE.
Can the internal surfaces of the receivers be examined and cleaned YES Is a drain fitted at the lowest part of each receiver YES

Injection Air Receivers, No. 4 Cubic capacity of each _____ Internal diameter _____ thickness _____
Seamless, lap welded or riveted longitudinal joint SEAMLESS Material STEEL Range of tensile strength _____ Working pressure _____
Starting Air Receivers, No. 4 Total cubic capacity _____ Internal diameter 15.70 in. thickness 20 in.
Seamless, lap welded or riveted longitudinal joint LAP WELD Material STEEL Range of tensile strength _____ Working pressure _____

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 YES

PLANS. Are approved plans forwarded herewith for shafting SEND LONDON FOR APP. 23/7/44 Receivers 23/7/44 Separate fuel tanks ✓
Donkey boilers 23/7/44 General pumping arrangements HEREIN ENCL. Pumping arrangements in machinery space HEREIN ENCL.
Oil fuel burning arrangements PLAN NOT AVAILABLE.

SPARE GEAR.

Has the spare gear required by the Rules been supplied YES
State the principal additional spare gear supplied _____

The foregoing is a correct description,

Manufacturer.

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

Dates of examination of principal parts—Cylinders	✓	Covers	✓	Pistons	✓	Rods	✓	Connecting rods	✓
Crank shaft	✓	Flywheel shaft	✓	Thrust shaft	✓	Intermediate shafts	✓	Tube shaft	✓
Screw shaft	✓	Propeller	✓	Stern tube	✓	Engine seatings	✓	Engine holding down bolts	✓
Completion of fitting sea connections	✓	Completion of pumping arrangements	✓	Engines tried under working conditions	✓				
Crank shaft, material	S.M.S.	Identification mark	VB. 9924	Flywheel shaft, material	S.M.S.	Identification mark	VB. 13039		
Thrust shaft, material	S.M.S.	Identification mark	VB. 13039	Intermediate shafts, material	S.M.S.	Identification marks	cf. VB. 83.4		
Tube shaft, material	—	Identification mark	—	Screw shaft, material	S.M.S.	Identification mark	ILLEGIBLE.		
Identification marks on air receivers	ALL 4 starting air receivers is marked only A.M. 3544 B.H. 1914.								

Is the flash point of the oil to be used over 150°F YES
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with YES
Description of fire extinguishing apparatus fitted 150 litres conical type Minimax.
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo OIL TANKER 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 NO
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.) The Machinery have been completely dismounted and repaired as necessary, examined all parts and checked the running as per plans and found in order. For Repairs please see the Rpt. 9. The workmanship are good. The Donkey Boiler has been hydraulically tested as Rules require and after repairs, oil fuel pump arrangement is examined and all auxiliary engine main Engine Examined under full working conditions. Torsional vibration taken and particulars will be sent in due course. Governor tested and 12 Manoury cannot out rate factory. It is submitted the machinery of this vessel merit be classed in The R. Book with the notation of LME- CS 9.44.

The amount of Entry Fee ... £
Special ... £
Donkey Boiler Fee... £
Travelling Expenses (if any) £
Committee's Minute
Assigned see minute on Rpts 8 & 9

When applied for 19
When received 19

Officially certified by
Engineer Surveyor to Lloyd's Register of Shipping.