

REPORT ON OIL ENGINE MACHINERY.

No. 114090

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Date of writing Report 13th January 1955 When handed in at Local Office 15th January 1955 Port of TRIESTE
No. in Survey held at Monfalcone - Trieste Date, First Survey 21st Febr. 1953 Last Survey 11th December 1954
Reg. Book. 95362 on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel. Mr. "ALDERMINE"
Number of Visits 168

Gross 12505
Net 7406
Built at Monfalcone By whom built Cant. Rimp. dell' Adriatico Yard No. 1793 When built 1954
Engines made at Trieste By whom made - do - Engine No. 5596 When made 1954
Donkey Boilers made at - do - By whom made - do - Boiler No. 1983 When made 1954
Brake Horse Power 8050 Owners 'ROMSA' - Raffineria O.P.O. Minerale S.A. Port belonging to GENOA
M.N. Power as per Rule 1610 Is Refrigerating Machinery fitted for cargo purposes ☒ Is Electric Light fitted ☒
Trade for which vessel is intended Carrying Petroleum in bulk

OIL ENGINES, &c. - Type of Engines CRDA - FIAT A 7510 2 or 4 stroke cycle 2 Single or double acting S.A.
Maximum pressure in cylinders 60 kg/cm² Diameter of cylinders 750 mm Length of stroke 1320 mm No. of cylinders 10 No. of cranks 10
Mean Indicated Pressure 6.25 kg/cm² Ahead Firing Order in Cylinders 1-10-2-8-4-6-5-7-3-9 Span of bearings, adjacent to the crank, measured from inner edge to inner edge 964 mm Is there a bearing between each crank ☒ Revolutions per minute 125
Flywheel dia. 2457 mm Weight 3920 kg Moment of inertia of flywheel (kgm²) 15800 Means of ignition compr. Kind of fuel used heavy
Crank ^{Solid forged} ~~Semi built~~ dia. of journals as per Rule as app. Crank pin dia. 550 mm Crank webs Mid. length breadth 900 mm Thickness parallel to axis -
Shaft, ^{411 mm} as fitted 550 mm Mid. length thickness 316 mm shrunk Thickness around eye hole 252.5 mm
Flywheel Shaft, diameter as per Rule as app. Intermediate Shafts, diameter as fitted 387 mm Thrust Shaft, diameter at collars as fitted 550 mm
Tube Shaft, diameter as per Rule as app. Screw Shaft, diameter as fitted 457 mm Is the (screw) shaft fitted with a continuous liner ☒
Bronze Liners, thickness in way of bushes as per Rule as app. Thickness between bushes as fitted 16.5 mm 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 ☒
If so, state type ☒
Length of bearing in Stern Bush next to and supporting propeller 2140 mm
Propeller, dia. 5250 mm Pitch 4410 mm No. of blades 4 Material bronze whether moveable fixed Total developed surface 9.42 sq. ft.
Moment of inertia of propeller (kgm²) 42600 Kind of damper, if fitted none
Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine ☒
Means of lubrication forced Thickness of cylinder liners 60 mm Are the cylinders fitted with safety valves ☒
Are the exhaust pipes and silencers water cooled ☒
Are they 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. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel ☒
Bilge Pumps worked from the Main Engines, No. ☒ Diameter ☒ Stroke ☒ Can one be overhauled while the other is at work ☒
Pumps connected to the Main Bilge Line No. and size 1 of 200 T/h. ☒ How driven steam ☒ 1 of 80 T/h. ☒ electrically
Is the cooling water led to the bilges ☒ 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 of 200 T/h. - 1 of 80 T/h. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 of 360 cu. mt./h.
Are two independent means arranged for circulating water through the Oil Cooler ☒
Suctions, connected to both main bilge pumps and auxiliary bilge pumps, No. and size: - In machinery spaces 1 at 100 mm - 2 at 80 mm - 2 at 50 mm (from DB space) - 2 at 50 mm from each ☒
In holds, &c. 2 at 65 mm from hold - 2 at 65 mm from fwd. p. room - 2 at 65 mm from deck - 1 at 65 mm from chain Poles - 1 at 50 mm from each ☒
Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1 at 125 mm stbd. - 1 at 100 mm port - 1 at 275 mm ☒
Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes ☒ Are the bilge suction 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 ☒ Are they fitted with valves or cocks ☒ Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates ☒
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 ☒ Are the blow off cocks fitted with a spigot and brass covering plate ☒
What pipes pass through the bunkers none How are they protected ☒
What pipes pass through the deep tanks none 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 ☒
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 ☒
Is the shaft tunnel watertight ☒ 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. ☒ No. of stages ☒ diameters ☒ stroke ☒ driven by ☒
Auxiliary Air Compressors, No. 2 ☒ No. of stages 2 ☒ diameter 220 mm³/h. stroke capacity each driven by ☒ elect. motor
Auxiliary Air Compressors, No. 1 ☒ No. of stages 2 ☒ diameter 220 mm³/h. stroke capacity driven by ☒ steam eng.
What provision is made for first charging the air receivers hand compressor
Scavenging Air Pumps, No. 2 opposed pistons diameter 1600 mm stroke 1050 mm driven by crank
Auxiliary Engines crank shafts, diameter as per Rule as app. No. 3 Position 2 port - 1 stbd. M.E. Room
Have the auxiliary engines been constructed under special survey ☒ Is a report sent herewith ☒

AIR RECEIVERS:—Have they been made under survey. yes State No. of ~~report~~ certificate. Tri. No. 2900
Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
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. ✓ Cubic capacity of each ✓ Internal diameter ✓ thickness ✓
Seamless, welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules
Starting Air Receivers, No. 2 Total cubic capacity 22 cu. mts. Internal diameter 1640/1578 thickness 32/31
Seamless, welded or riveted longitudinal joint welded Material S.M.S. Range of tensile strength 41 kg/cm² Working pressure Actual 30 kg/cm²

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 no

PLANS. Are approved plans forwarded herewith for shafting yes Receivers 22.10.52 for 1/2 Nos. 1771/1772
(If not, state date of approval) Separate fuel tanks yes
Donkey boilers yes General pumping arrangements yes Pumping arrangements in machinery space yes
Oil fuel burning arrangements yes
Have Torsional Vibration characteristics been approved yes Date of approval 3.7.53

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes
State the principal additional spare gear supplied 1 propeller - 1 screw shaft - 1 liner complete - 1 piston - 1 cover
1 piston rod - 1 conn. rod - and various other small miscellaneous items.

CANTIERI RIUNITI DELL'ADRIATICO

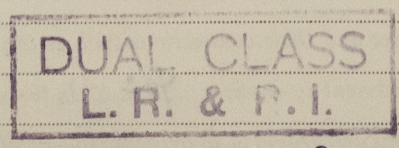
The foregoing is a correct description, Monte Manufacturer.

Dates of Survey while building
During progress of work in shops - 1953 Feb. 21, 24, 25, 28. Mar. 20, Apr. 21, May 15, 26, 30, June 3, 9, 10, 18, 23, 26, July 1, 10, 11, 17, 21, 23, 24, 29.
Aug. 3, 5, 8, 21, 28, Sep. 5, 8, 12, 16, 19, 25, Oct. 1, 3, 6, 8, 9, 12, 14, 16, 20, 23, 27, 29, Nov. 9, 11, 14, 17, 19, 23, Dec. 1, 3, 10, 11, 14, 16.
17, 14, 50. July 1, 3, 20, 22, 23, Aug. 3, 9, 24, 25, 27.
During erection on board vessel - 1953 Sep. 23, Nov. 9, 29, Dec. 4, 11, 14, 1954 Jan. 8, Feb. 1, 5, 7, Apr. 26, May 3, 7, 10, 14, 18, 21, 25, June 4, 10, 12, 15, 19, 20, 22, 30.
July 2, 8, Aug. 30, Sep. 1, 3, 8, 14, 17, 22, 27, Oct. 16, 19, 20, 22, 27, 29, Nov. 3, 10, 12, 15, 16, 17, 18, 20, 22, 23, 25, 27, 29.
Total No. of visits 168

Dates of examination of principal parts—Cylinders Aug. 5H Covers Aug. 5H Pistons Aug. 5H Rods Aug. 5H Connecting rods Aug. 5H
Crank shaft Aug. 5H Flywheel shaft Aug. 5H Thrust shaft Aug. 5H Intermediate shafts ✓ Tube shaft ✓
Screw shaft June 5H Propeller June 5H Stern tube June 5H Engine seatings Aug. 5H Engine holding down bolts Oct. 5H
Completion of fitting sea connections June 5H Completion of pumping arrangements Nor. 5H Engines tried under working conditions Dec. 5H
Crank shaft, material E.F.S. Identification mark Lloyd's 8008/8853 Flywheel shaft, material see thrust Identification mark ✓
Thrust shaft, material E.F.S. Identification mark Lloyd's 9016 Intermediate shafts, material E.F.S. Identification marks Lloyd's 2709
Tube shaft, material ✓ Identification mark ✓ Screw shaft, material E.F.S. Identification mark Lloyd's 2692 ss
Identification marks on air receivers 808 - 807
LLOYD'S TEST HB.5 kg/cm² - W.P. 30 kg/cm² - J.T.W. 23.11.53

Welded receivers, state Makers' Name Messrs. Cantieri Riuniti dell'Adriatico - F.M.S.A. - Trieste
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 CO₂ led to the eng. room - steam with remote control under oil fired boilers -
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ✓ 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 ✓
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 of this vessel has been built under special survey in accordance with Secretary's Orders and approved plans - All important forgings and castings were made inspected and tested in accordance with the Rules. The workmanship and materials are good - The machinery was installed on board the vessel in an efficient manner and found satisfactory when tried at sea under full working condition -
In my opinion, the machinery of this vessel is eligible to be classed with records of:
ELM.C. 12-5H - 2 DB 171 lbs - screw shaft C.L.



L. 1.264.500. less 15% for The amount of Entry Fee dual class 1.074.825.
Special ... Cor. fund ... £ 26.870.
Donkey Boiler Fee... See Rpt. 5a ✓
Travelling Expenses (if any) £ 60.210.
+ 2% Rev. Tax. 34,858.

When applied for 15th Dec 1955
When received 19

Engineer Surveyor to Lloyd's Register of Shipping.
Stelar

Committee's Minute FRIDAY 1 FEB 1955
Assigned L.M.C. 12.54

