

## REPORT ON OIL ENGINE MACHINERY.

No. 13908  
7 - NOV 1953

Date of writing Report 19 30.10 19 53 Port of TRIESTE  
When handed in at Local Office  
No. in Survey held at Trieste Date, First Survey 12th April, '53 Last Survey 3rd October 19 53  
Reg. Book. Number of Visits 11  
35136 S on the ~~Triple~~ ~~Quadruple~~ Single Screw vessel "ILOSANGI" Tons Gross 282 Net 124  
Built at TRIESTE By whom built Cantiere Navale Giuliano Yard No. 36 When built 1953-10  
Engines made at Openshaw, Manchester By whom made Messrs. Crossley Bros., Ltd. Engine No. 146640 When made 1952  
Donkey Boilers made at none By whom made - Boiler No. - When made -  
Brake Horse Power 300 ✓ Owners Indonesian Republic Port belonging to Djakarta  
M.N. Power as per Rule 60 ✓ Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
Trade for which vessel is intended General cargo

OIL ENGINES, &c. — Type of Engines 2 or 4 stroke cycle. Single or double acting.  
Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks  
Mean Indicated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured from inner edge to inner edge Is there a bearing between each crank. Revolutions per minute  
Flywheel dia. Weight Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) Means of ignition Kind of fuel used  
Crank Shaft, Solid forged dia. of journals as per Rule Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis  
Semi built as fitted Crank webs Mid. length thickness shrunk Thickness around eyehole  
All built as fitted  
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule as apprd. 4 3/8" ✓ Thrust Shaft, diameter at collars as fitted 4 3/4" ✓  
as fitted Tube Shaft, diameter as per Rule as fitted as apprd. 5" ✓ Is the (screw) shaft fitted with a continuous liner no ✓  
as fitted Screw Shaft, diameter as per Rule as fitted 5" ✓  
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule 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. yes If so, state type BRUNTON ✓ Length of bearing in Stern Bush next to and supporting propeller 21 1/4" ✓  
Propeller, dia. 62 1/2" ✓ Pitch 50 1/4" No. of blades 4 Material M. Bronze whether moveable fixed Total developed surface 1340 sq. ins.  
Moment of inertia of propeller (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) Kind of damper, if fitted  
Method of reversing Engines direct ✓ Is a governor or other arrangement fitted to prevent racing of the engine when started yes ✓ Means of lubrication forced Thickness of cylinder liners 7/8" Are the cylinders fitted with safety valves yes ✓ Are the exhaust pipes and silencers water cooled or lagged with non-conducting material yes ✓ If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine. 1 worked from M.E. ✓ 1 stand By (ballast pump)  
Cooling Water Pumps, No. 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. None Diameter - Stroke - Can one be overhauled while the other is at work. -  
Pumps connected to the Main Bilge Line No. and size 1 bilge pump 35 M<sup>3</sup>/Hr. ✓ 1 ballast pump 35 M<sup>3</sup>/Hr. ✓  
How driven No. 1 Aux. H.O. Eng. No. 2 Aux. H.O. Eng.  
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 One 35 M<sup>3</sup>/Hr. ✓ Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 3 M<sup>3</sup>/Hr. ✓ 1 2 M<sup>3</sup>/Hr. ✓  
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 One at 60 mm ✓ In pump room -  
In holds, &c. No. 1 & No. 2 holds 2 each at 60 mm ✓ 1 to C.D. at 50 mm ✓  
Independent Power Pump Direct Suctions to the engine room bilges, No. and size One at 60 mm ✓ One at 80 mm ✓  
Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes. yes ✓ 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. yes as practicable ✓  
Are all Sea Connections fitted direct on the skin of the Ship. yes ✓ Are they fitted with valves or cocks both ✓ Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates. yes as practicable ✓ 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. -  
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. 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. 1 ✓ No. of stages two diameters 5 3/4" & stroke 4" driven by Main Eng.  
Auxiliary Air Compressors, No. 1 ✓ No. of stages one diameter 2 1/2" Capacity 30 M<sup>3</sup>/Hr. driven by H.O. Eng. aggregat  
Small Auxiliary Air Compressors, No. - No. of stages - diameters - stroke - driven by -  
What provision is made for first charging the air receivers. aux. gen. engine driving compressor thro clutch can be started by hand  
Scavenging Air Pumps, No. 1 D.A. tandem diameter 20 1/2" stroke 6 1/4" driven by Main engine  
Auxiliary Engines crank shafts, diameter as per Rule See Hamburg Rpt. 10 No. One portside, one starboard side M.E. Room  
as fitted No's. 3226 & 3227 Position -  
Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith



AIR RECEIVERS:—Have they been made under survey.....yes.....State No. of report or certificate.....  
Is each receiver, which can be isolated, fitted with a safety valve as per Rule.....  
Can the internal surfaces of the receivers be examined and cleaned.....  
Injection Air Receivers, No.....Cubic capacity of each.....Internal diameter.....thickness.....  
Seamless, welded or riveted longitudinal joint.....Material.....Range of tensile strength.....Working pressure.....  
Starting Air Receivers, No.....Total cubic capacity.....Internal diameter.....thickness.....  
Seamless, welded or riveted longitudinal joint.....Material.....Range of tensile strength.....Working pressure.....

IS A DONKEY BOILER FITTED.....no.....If so, is a report now forwarded.....  
Is the donkey boiler intended to be used for domestic purposes only.....

PLANS. Are approved plans forwarded herewith for shafting.....26th Sept. 1952.....Receivers.....Nottingham Surveyors.....Separate fuel tanks.....  
Donkey boilers.....General pumping arrangements.....16th Sept. 52.....Pumping arrangements in machinery space.....16th Sept. 52  
Oil fuel burning arrangements.....  
Have Torsional Vibration characteristics been approved.....yes.....Date of approval.....26th Sept. 1952

#### SPARE GEAR.

Has the spare gear required by the Rules been supplied.....yes.....  
State the principal additional spare gear supplied.....one screwshaft, one propeller and various miscellaneous items  
NOTE:— A notice board has been fitted at the Main Engine control station stating that the engine  
is not to be operated continuously between 220 and 255 R.P.M. and the engine tachometer has been  
marked accordingly.

CANTIERE NAVALE GIULIANO SAN GIUSTO

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building.....During progress of work in shops - - - See Manchester Rpt. 4b N° 15361  
During erection on board vessel - - - 1953: Apr. 12. June 17, 27. Aug. 13, 28. Sept. 1, 4, 19, 30. Oct. 3.-  
Total No. of visits.....eleven  
Dates of examination of principal parts—Cylinders.....Covers.....Pistons.....Rods.....Connecting rods.....  
Crank shaft.....Flywheel shaft.....Thrust shaft.....Intermediate shafts.....27.3.53.....Tube shaft.....  
Screw shaft.....27.3.53.....Propeller.....27.3.53.....Stern tube.....12.4.53.....Engine seatings.....6.6.53.....Engine holding down bolts.....27.6.53  
Completion of fitting sea connections.....May '53.....Completion of pumping arrangements.....30.9.53.....Engines tried under working conditions.....30.9.53  
Crank shaft, material.....Identification mark.....Flywheel shaft, material.....Identification mark.....  
Thrust shaft, material.....Identification mark.....Intermediate shafts, material.....S. M. S. Identification marks.....E 23967  
Tube shaft, material.....Identification mark.....Screw shaft, material.....S. M. S. Identification mark.....E 23702  
Identification marks on air receivers.....35617-54 LLOYD'S TEST 17.9.52 TP 575 lbs. W.P. 350 lbs. (9501-54)  
35617-8 LLOYD'S TEST 9.7.52 TP 575 lbs. W.P. 350 lbs. (9501-54)  
Welded receivers, state Makers' Name.....See Nottingham Rpts.  
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.....CO<sub>2</sub> portable extinguishers and water hoses  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo.....no.....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.....yes.....If so, state name of vessel.....M/V "INIS" & M/V "ENTATA"

General Remarks (State quality of workmanship, opinions as to class, &c.....  
The main machinery of this vessel was constructed under the supervision of the Manchester Surveyors and has now been efficiently installed aboard the vessel in accordance with Rule requirements, the Secretary's letters and approved plans together with the auxiliary machinery, constructed under the supervision of the Hamburg Surveyors.  
The workmanship and materials are good.  
On completion the installation was tried under full working conditions at sea and found satisfactory.  
In my opinion the machinery of the vessel is eligible to be classed with the records:  
+ LMC - 10,53 Oil Engine Screwshaft O.G.

The amount of Entry Fee .....£ 34.6.0  
Special .....£ :  
Donkey Boiler Fee.....£ 1.15.0  
Travelling Expenses (if any) £ 2.10.0  
When applied for.....A/R rendered 1953  
When received.....19  
Committee's Minute.....TUESDAY - 1 DEC 1953  
Assigned.....+ LMC 10.53 Gil Eng. (Torsional Eng.)  
OG.