

## REPORT ON OIL ENGINE MACHINERY.

No. 13909  
7 - NOV 1953

Received at London Office

of writing Report 29.10.53 When handed in at Local Office 30.10.53 Port of TRIESTE  
 in Survey held at TRIESTE Date, First Survey 13th May 1953 Last Survey 5th October 1953  
 Book. Number of Visits 1  
 255 S. Single on the Twin Triple Quadruple Screw vessel "INDARI"  
 Tons Gross 281 Net 124  
 at TRIESTE By whom built Cantiere Navale Giuliano - S. Giusto Yard No. 34 When built 1953 - 10  
 lines made at OPENSHAW By whom made Messrs. Crossley Bros., Ltd Engine No. 146642 When made 1952  
 key Boilers made at none By whom made - Boiler No. - When made -  
 ke Horse Power 300 Owners Indonesian Republic Port belonging to Djakarta  
 Power as per Rule 60 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes  
 le for which vessel is intended General cargo

ENGINES, &c. — Type of Engines 2 or 4 stroke cycle Single or double acting  
 imum pressure in cylinders Diameter of cylinders Length of stroke 15.440 No. of cylinders No. of cranks  
 n Indicated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured  
 inner edge to inner edge Is there a bearing between each crank Revolutions per minute  
 wheel 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  
 Solid forged dia. of journals as per Rule Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis  
 Semi built dia. as fitted Crank webs Mid. length thickness shrunk Thickness around eye hole  
 All built as fitted  
 wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as fitted  
 as fitted 4 3/8" as appl. as fitted 4 3/4" as fitted  
 e Shaft, diameter as per Rule Screw Shaft, diameter as fitted 5" Is the tube shaft fitted with a continuous liner no  
 as fitted  
 size Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the  
 as fitted  
 ells boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner  
 he 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-  
 osive 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  
 of tube shaft yes If so, state type BRUNTON Length of bearing in Stern Bush next to and supporting propeller 21 1/4" ins.  
 25/11/53  
 25 62 1/2" Pitch 50 1/4" No. of blades 4 Material M. Bronze whether moveable fixed Total developed surface 1340 sq. feet  
 ent of inertia of propeller (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) Kind of damper, if fitted  
 hod of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when de-clutched yes Means of  
 25/11/53  
 25 location forced Thickness of cylinder liners 7/8" Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled  
 gged with non-conducting material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned  
 to the engine 1 worked from M.E. stand by (ballast pump) Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
 e Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work  
 ps 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.  
 e 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  
 ngements  
 ast Pumps, No. and size 1 35 M<sup>3</sup>/Hr. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 10 M<sup>3</sup>/Hr.  
 two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both main bilge pumps and auxiliary  
 pumps, No. and size:—In machinery spaces One at 60 mm. In pump room  
 olds, &c. No. 1 and No. 2 Holds 2 each at 60 mm. 1 to C.D. at 50 mm.  
 ependent Power Pump Direct Suctions to the engine room bilges, No. and size One at 60 mm. One at 80 mm.  
 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  
 ssible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. yes as practicable  
 all Sea Connections fitted direct on the skin of the Ship. yes Are they fitted with valves or cocks. both Are they fixed  
 25/11/53  
 25 ciently 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  
 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.  
 t pipes pass through the bunkers. none How are they protected.  
 t pipes pass through the deep tanks. none Have they been tested as per Rule.  
 all pipes, cocks, valves and pumps in connection with the machinery and all boiler mounting accessible at all times. yes  
 he 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  
 es, or from one compartment to another. yes Is the shaft tunnel watertight. none Is it fitted with a watertight door. worked from  
 wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.  
 in Air Compressors, No. 1 No. of stages two diameters 5 3/4" & stroke 4" driven by Main Eng.  
 25/11/53  
 25 xiliary Air Compressors, No. 1 No. of stages one diameters 2 1/2" stroke 4" driven by H.O. Eng. aggregate  
 capacity 30 M<sup>3</sup>/Hr.  
 2.13.1 all Auxiliary Air Compressors, No. — No. of stages — diameters — stroke — driven by  
 25.22 at provision is made for first charging the air receivers. Aux. Gen. engine driving compressor thro clutch can be started by hand  
 venging Air Pumps, No. 1 D.A. tandem diameter 20 1/2" stroke 6 1/4" driven by Main Eng.  
 50 xiliary Engines crank shafts, diameter as per Rule See Hamburg report 10 No. Two 24 B.H.P. driven by  
 as fitted No. 3228 & 3231 Position One portside One Starboard M.E. Room  
 ve the auxiliary engines been constructed under special survey. Yes Is a report sent herewith. no

010219-010228-0189



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.....Is a drain fitted at the lowest part of each receiver.....  
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.....  
(If not, state date of approval)  
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. '52

#### 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.

—The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
During progress of work in shops.....SEE MANCHESTER REPORT 4b N°.15440  
During erection on board vessel.....1953: May 13, 15, July 29—Aug. 13,—Sept. 8, 19, 22, —Oct. 1, 2, 3, 5.—  
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.....13.5.53 Tube shaft.....  
Screw shaft.....13.5.53 Propeller.....13.5.53 Stern tube.....13.5.53 Engine seatings.....29.7.53 Engine holding down bolts.....29.7.53  
Completion of fitting sea connections.....June '53 Completion of pumping arrangements.....2.10.53 Engines tried under working conditions.....2.10.53  
Crank shaft, material.....Identification mark.....Flywheel shaft, material.....Identification mark.....  
Thrust shaft, material.....Identification mark.....Intermediate shafts, material.....S.M.S. Identification marks.....E.23698  
Tube shaft, material.....Identification mark.....Screw shaft, material.....S.M.S. Identification mark.....E.23698  
Identification marks on air receivers.....35617 - 55 LLOYD'S TEST 17.9.52 TP 575 lbs. W.P. 350 lbs (9501-55)  
TP 575 lbs. W.P. 350 lbs (9501-55)

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 "INTATA"

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 this 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.....£  
Travelling Expenses (if any).....£ 1.15.0  
Car fund.....£ 2.10.0  
When applied for.....31 NOV 1953  
When received.....19

Committee's Minute.....TUESDAY - 1 DEC 1953  
Assigned.....+ LMC 10.53 Oil Eng (With Torsional Encl.)  
OG.

Lloyd's Register Foundation