

REPORT ON OIL ENGINE MACHINERY.

No. 13641

12 MAY 1952

Received at London Office

ing Report 8TH MAY 1952 When handed in at Local Office 8TH MAY 1952 Port of TRIESTE
 Survey held at TRIESTE Date, First Survey SEE RPT. 9 Last Survey 19
 Number of Visits
 Single on the Twin Triple Quadruple Screw vessel M/V "BRUNA" Ex "BRUNA M" Tons Gross 146 Net
 TRIESTE By whom built CANT. MARTINUZZI Yard No. 13 When built 1947
 HAMBURG By whom made HANSEATISCHE MOTOREN GESELLSCHAFT. Engine No. 7392 When made 1951
 By whom made Boiler No. When made
 se Power 160 Owners ZABAN S.A. Port belonging to MONROVIA
 er as per Rule 32 Is Refrigerating Machinery fitted for cargo purposes. NO Is Electric Light fitted YES
 which vessel is intended GENERAL CARGO - COASTING SERVICE

GINES, &c. — Type of Engines HEAVY OIL 2 or 4 stroke cycle 2 Single or double acting S.A.
 pressure in cylinders 50 Kg./cm² Diameter of cylinders 210 mm Length of stroke 320 mm No. of cylinders 4 No. of cranks 4
 icated Pressure 4.4 Kg./cm² Ahead Firing Order in Cylinders 1, 3, 2, 4 Span of bearings, adjacent to the crank, measured
 r edge to inner edge 320 mm Is there a bearing between each crank YES Revolutions per minute 450
 dia. 750 mm Weight 750 Kg. Moment of inertia of flywheel (lbs. in² or Kg. cm.²) Means of ignition COMP Kind of fuel used DIESEL
 Solid forged as per Rule 121 mm Mid. length breadth 220 mm Thickness parallel to axis 92 mm
 Semi built dia. of journals as fitted 140 mm Crank pin dia. 140 mm Crank webs Mid. length thickness 64 mm shrunk Thickness around eyehole 43-23 mm
 All built as per Rule 121 mm as per Rule 70 mm as fitted 104 mm
 Shaft, diameter as fitted 120 mm Intermediate Shafts, diameter as fitted 100 mm Thrust Shaft, diameter at collars as per Rule 77 mm
 ft, diameter as per Rule 84 mm Is the {tube} shaft fitted with a continuous liner { NO
 as fitted 100 mm {screw}
 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
 boss — If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
 er 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-
 — If two liners are fitted, is the shaft lapped or protected between the liners — Is an approved Oil Gland or other appliances fitted at the after
 e shaft NO If so, state type — Length of bearing in Stern Bush next to and supporting propeller 290 mm
 r, dia 1050 mm Pitch No. of blades 3 Material BRONZE whether moveable NO Total developed surface sq. feet
 of inertia of propeller (lbs. in² or Kg. cm.²) Kind of damper, if fitted NONE
 of reversing Engines CLUTCH & GEARING Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of
 on FORCED Thickness of cylinder liners Are the cylinders fitted with safety valves NO Are the exhaust pipes and silencers water cooled
 with non-conducting material PARTLY If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
 he engine — Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES
 mps worked from the Main Engines, No. 1 Diameter 80 mm Stroke 30 mm Can one be overhauled while the other is at work —
 onnected to the Main Bilge Line No. and size 1 AS ABOVE 1-20 T/HR INDEP. How driven AUX. DIESEL.
 oling 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
 nents — MULTIPLE UNIT LUBRICATOR FITTED
 Pumps, No. and size 1-20 T/HR Power Driven Lubricating Oil Pumps, including spare pump, No. and size
 independent means arranged for circulating water through the Oil Cooler NO COOLER Suctions, connected to both main bilge pumps and auxiliary
 mps, No. and size: — In machinery spaces 1 @ 2 1/2" TO INDEP. PUMP. 1 @ 1 1/2" TO ENG. DRIVEN PUMP
 , &c. 1 @ 2 1/2" TO INDEP. PUMP 1 @ 1 1/2" TO ENG. DRIVEN PUMP.
 ident Power Pump Direct Suctions to the engine room bilges, No. and size AS ABOVE
 he bilge suction pipes in holds and tunnel well fitted with strum-boxes. YES Are the bilge suction in the machinery spaces led from easily
 le mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. NO BUT STRUMS FITTED AND
 Sea Connections fitted direct on the skin of the Ship. YES Are they fitted with valves or cocks. YES Are they fixed
 tly 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
 y 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. —
 ipes pass through the bunkers. NONE How are they protected. —
 ipes pass through the deep tanks. Have they been tested as per Rule. —
 pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times. YES
 rangement 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
 or from one compartment to another. YES Is the shaft tunnel watertight. — Is it fitted with a watertight door. — worked from. —
 d vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork. —
 ir Compressors, No. NO AIR COMPRESSOR. A LEAK-OFF IS FITTED TO ONE
 ry Air Compressors, No. MAIN ENGINE CYLINDER FOR CHARGING BOTTLES
 Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
 rovision is made for first charging the air receivers. NONE
 ing Air Pumps, No. CRANK CASE PRESSURE SCAVENGING AIR SYSTEM driven by
 ry Engines crank shafts, diameter as per Rule ONE 80 mm BORE x 110 mm STROKE SINGLE CYL. ENG.
 as fitted DRIVES INDEP. PUMP & DYNAMO
 e 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 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 —
Starting Air Receivers, No. 2 Total cubic capacity 100+50 Lit. Internal diameter 321, 267 mm thickness 8, 7 mm
Seamless, welded or riveted longitudinal joint SEAMLESS Material STEEL 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 YES Receivers YES Separate fuel tank —
(If not, state date of approval) Donkey boilers — General pumping arrangements YES Pumping arrangements in machinery space YES
Oil fuel burning arrangements YES Have Torsional Vibration characteristics been approved — Date of approval —

SPARE GEAR.

Has the spare gear required by the Rules been supplied SPARE PROP. ONLY
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 COPY OF G.L. CERTIFICATE FOR MAIN ENGINE ATTACHED Identification mark — Flywheel shaft, material — Identification mark —
Thrust shaft, material — Identification mark — Intermediate shafts, material — Identification marks —
Tube shaft, material — Identification mark — Screw shaft, material — Identification mark —
Identification marks on air receivers STAMPED GERMANISCHER LLOYD
TEST 60 kg/cm² W.P. 30 kg/cm²

Welded receivers, state Makers' Name —

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 4 - 2 GALL. PORTABLE EXTINGUISHERS

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 No If so, state name of vessel —

General Remarks (State quality of workmanship, opinions as to class, &c. THE ORIGINAL MAIN ENGINE OF VESSEL WAS REMOVED IN 1951 & REPLACED BY ONE APPARENTLY CONSTRUCTED IN THAT YEAR UNDER THE SURVEY OF THE GERMANISCHER LLOYD. ALL WORKING PARTS HAVE NOW BEEN OPENED UP, EXAMINED, AND THE WORKMANSHIP AND MATERIALS FOUND, AS FAR AS COULD BE SEEN, SATISFACTORY. ALL MACHINERY WAS SUBSEQUENTLY TRIED UNDER FULL WORKING CONDITIONS AT SEA AND FOUND EFFICIENT. THE VESSEL IS INTENDED FOR RESTRICTED CLASS ONLY AND IT IS SUBMITTED, THEREFORE, THE INSTALLATION MIGHT BE CLASSED WITH RECORD OF LMC 5,52

The amount of Entry Fee ... £ : : :

Special SEE RPT. 9 £9 : : :

Donkey Boiler Fee... £ : : :

Travelling Expenses (if any) £ : : :

When applied for 19

When received 19

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 23 MAY 1952

Assigned See minute on Rpt. 9



Lloyd's Register Foundation