

REPORT ON OIL ENGINE MACHINERY.

No. 13641

12 MAY 1952

Received at London Office

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

Screw vessel M/V "BRUNA" Ex "BRUNA M" Tons Gross 146 Net

By whom built CANT. MARTINUZZI Yard No. 13 When built 1947

By whom made HANSEATISCHE MOTOREN GESELLSCHAFT. Engine No. 7392 When made 1951

Boiler No. - When made -

Owners ZABAN S.A. Port belonging to MONROVIA

Is Refrigerating Machinery fitted for cargo purposes. NO Is Electric Light fitted. YES

which vessel is intended GENERAL CARGO - COASTING SERVICE

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 4indicated Pressure 4.4 Kg/cm² Ahead Firing Order in Cylinders 1, 3, 2, 4 Span of bearings, adjacent to the crank, measured

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 dia. of journals as per Rule 121 mm Crank pin dia. 140 mm Crank webs Mid. length breadth 220 mm Thickness parallel to axis 92 mm

Semi built dia. of journals as fitted 140 mm Crank webs Mid. length thickness 64 mm Thickness around eye-hole 43-23 mm

All built as per Rule 121 mm Intermediate Shafts, diameter as per Rule 70 mm Thrust Shaft, diameter at collars as fitted 104 mm

Shaft, diameter as fitted 120 mm AT FORD. END as per Rule 84 mm as fitted 100 mm as per Rule 77 mm

ft, diameter as per Rule - Screw Shaft, diameter as per Rule 100 mm Is the (tube) shaft fitted with a continuous liner (screw) No

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

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

the engine - Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES

pumps worked from the Main Engines, No. 1 Diameter 80 mm Stroke 30 mm Can one be overhauled while the other is at work -

connected to the Main Bilge Line (No. and size 1 AS ABOVE 1-20 T/HR INDEP. How driven AUXY. 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

ments - 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

pumps, No. and size: - In machinery spaces 1 @ 2 1/2" TO INDEP. PUMP. 1 @ 1 1/2" TO ENGIN DRIVEN PUMP IN PUMP ROOM -

, &c. 1 @ 2 1/2" TO INDEP. PUMP 1 @ 1 1/2" TO ENGIN DRIVEN PUMP.

ident Power Pump Direct Suctions to the engine room bilges, No. and size AS ABOVE

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

le mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. NO BUT STRUMS FITTED AND PIPES SHORT & EASILY DISCONNECTED.

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 -

pipes pass through the bunkers NONE How are they protected -

pipes 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

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

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 -

Air 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 -

provision 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. ENGS.

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 ATTACHMENT 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 KGS/CM² W.P. 30 KGS/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 : : When applied for — 19
 Donkey Boiler, Fee... £ : : When received — 19
 Travelling Expenses (if any) £ : :

John W. G. Lee
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 23 MAY 1952
 Assigned See minute on Rpt. 9



Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.