

REPORT ON OIL ENGINE MACHINERY.

No. 19628

19 NOV 1953

Received at London Office

Writing Report 12-10-1953 When handed in at Local Office 21-10-1953 Port of Genoa

Survey held at Genoa - La Spezia Date, First Survey 23-6-1951 Last Survey 19-10-1953

Book. 43 on the Twin Triple Screw vessel M/V "FRANCESCO BIBOLINI" Tons Gross 15320 Net 9338

By whom built Loc. Anon. "Dusaleo" Cant. di Muggiano Card No. 1414 When built 1953

By whom made Loc. Anon. "FIAT. S.G.M." Engine No. 18639 When made 1953

Boilers made at Genoa - la Spezia By whom made Loc. Anon. "Ansaldo" Habil. Mercurio Boiler No. 5518-5519 When made 1953

Horse Power 5500 x 3 = 14000 Owners CIA. di NAVIGAZIONE BIBOLINI S.p.A. Port belonging to Genoa

Power as per Rule 3200 2940 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted YES.

for which vessel is intended Carrying petroleum in bulk.

ENGINES, &c. - Type of Engines "FIAT. 75% oilen injection" 2 or 4 stroke cycle 3 Single or double acting single

Mean pressure in cylinders 60 kg/cm² Diameter of cylinders 150 mm Length of stroke 1320 mm No. of cylinders 7 No. of cranks 7

Indicated Pressure 0.3 kg/cm² Ahead Firing Order in Cylinders 1.6.3.4.5.2.7 Span of bearings, adjacent to the crank, measured

inner edge to inner edge 967 mm Is there a bearing between each crank YES. Revolutions per minute 135

Wheel dia. 2457 mm Weight 3930 kg Moment of inertia of flywheel (theoretical) 16968 Means of ignition Compression Kind of fuel used diesel

Solid forged dia. of journals as per Rule as allowed 550 mm Crank pin dia. 550 mm Crank webs Mid. length breadth 316 mm Thickness parallel to axis 318 mm

Semi built dia. of journals as fitted 550 mm Crank webs Mid. length thickness 316 mm Thickness around eye hole 358.5 mm

All built dia. of journals as per Rule as allowed 550 mm Intermediate Shafts, diameter as per Rule as allowed 390 mm Thrust Shaft, diameter at collars as fitted 550 mm

Shaft, diameter as fitted 550 mm Screw Shaft, diameter as fitted 436 mm Is the screw shaft fitted with a continuous liner YES.

Liners, thickness in way of bushes as per Rule as allowed 21 mm Thickness between bushes as fitted 16.5 mm Is the after end of the liner made watertight in the

ster boss YES. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner YES.

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-

ve. 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

tube shaft. If so, state type Length of bearing in Stern Bush next to and supporting propeller 1917 mm

Propeller, dia. 4200 mm Pitch 4339 mm No. of blades four Material M.B. whether moveable solid Total developed surface 8.3 sq. feet

Moment of inertia of propeller (theoretical) 39430 Kind of damper, if fitted

Method of reversing Engines diesel Is a governor or other arrangement fitted to prevent racing of the engine when declutched genuine Means of

rotation forced Thickness of cylinder liners. Are the cylinders fitted with safety valves YES. Are the exhaust pipes and silencers water cooled

with non-conducting material lagged. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

to the engine. Cooling Water Pumps, No. three S.W. pump - F.W. pump = 2 sea pumps each 540 ts/hr. capac. YES.

Can one be overhauled while the other is at work. Pumps worked from the Main Engines, No. Diameter Stroke

connected to the Main Bilge Line (No. and size) three in eng. room = 300 - 150 - 150 ts/hr = 2 sea pumps each 100 ts/hr electrically driven steam driven.

How driven. How is the sea suction provided with an efficient strainer which can be cleared within the vessel. YES.

How 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. Pumps, No. and size. Power Driven Lubricating Oil Pumps, including spare pump, No. and size. three = 230 ts/hr electrically.

Are there 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 two: 80 = five: 100 = one: 150 = one: 200 + one: 250 mm φ In pump room two: 80 = one: 150 mm φ (steering pump)

Is there any other suction to the engine room bilges, No. and size. one: 150 = one: 200 + one: 250 mm φ =

Are the bilge suction pipes in holds and trunks fitted with strum-boxes. YES. Are the bilge suction pipes 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.

Sea Connections fitted direct on the skin of the Ship are stools - welded to ship side. Are they fitted with valves or cocks. valves Are they fixed

high enough 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

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. YES.

How are they protected. How are they protected. pipes pass through the bunkers.

How are they protected. How are they protected. pipes pass through the deep tanks. F.P. suction + coff. bilge suction. Have they been tested as per Rule. YES.

Are pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times. YES.

Is there any 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.

For a motor vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.

Air Compressors, No. No. of stages diameters stroke driven by

Primary Air Compressors, No. two: 400 cu ft/hr No. of stages two diameters 280-440 mm stroke 300 mm driven by electrically

Auxiliary Air Compressors, No. one: 14 cu ft/hr No. of stages two diameters 75-64 mm stroke 60 mm driven by diesel engine 9 HP

Is provision made for first charging the air receivers. The above small aux. air compressors.

Charging Air Pumps, No. one (two pistons in tandem) diameter 1406 mm stroke 910 mm driven by main engine crank

Primary Engines crank shafts, diameter as per Rule as allowed 200 mm = 165 mm = 75 mm = 130 mm = 35 mm = 110 mm driven by 2: 200 kW = 1: 75 kW = 1: 35 kW = 1: 35 kW Turbogener.

Are the auxiliary engines been constructed under special survey. YES. Is a report sent herewith. YES.

011678-011692-0198 1/2

AIR RECEIVERS:—Have they been made under survey YES. State No. of report Quova-27. H.E.
 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. 1 Cubic capacity of each 1 Internal diameter 1 thickness 1
 Seamless, welded or riveted longitudinal joint 1 Material 1 Range of tensile strength 1 Working pressure 1
Starting Air Receivers, No. four Total cubic capacity 38 cu³ Internal diameter 13 1/2 in. thickness 28.57
 Seamless, welded or riveted longitudinal joint welded & caulk. Material S.M. Steel Range of tensile strength 41,417 lb./sq. in. Working pressure Actual

IS A DONKEY BOILER FITTED YES. If so, is report now forwarded YES.
 Is the donkey boiler intended to be used for domestic purposes only YES and for cargo heating & pumping.
PLANS. Are approved plans forwarded herewith for shafting 5.4.53 / see also London Receivers 29.7.49 Separate fuel tank 1
 Donkey boilers 19.7.53 / 6.6.53 General pumping arrangements 6.3.53 Pumping arrangements in machinery space 6.6.53
 Oil fuel burning arrangements 6.6.53
 Have Torsional Vibration characteristics been approved YES. Date of approval 31.10.1953

SPARE GEAR.

Has the spare gear required by the Rules been supplied YES.
 State the principal additional spare gear supplied One m. eng. cylinder cover

ANBALDO
 Società per Azioni - Sede in Genova
 SARTIERE DI MURIGNANO

The foregoing is a correct description, and the particulars of the installation, as fitted, are as approved for identification characteristics.

Dates of Survey while building
 During progress of work in shops - 22.6.1951 to 16.9.1953 (see Quova F.E. Rpt. no. 19035)
 During erection on board vessel - 24.11.1952 to 19.10.53
 Total No. of visits 6
 Dates of examination of principal parts—Cylinders 4.4.53 Covers 4.4.53 Pistons 9.10.53 Rods 10.11.51 Connecting rods 33.10.51
 Crank shaft 21.12.51 Flywheel shaft 21.12.51 Thrust shaft 21.12.51 Intermediate shafts 31.11.53 to 4.3.53 Tube shaft 1
 Screw shaft 20.4.51 Propeller 2.10.53 Stern tube 20.4.53 Engine seatings 5.5.53 / 26.1.53 Engine holding down bolts 5.8.53
 Completion of fitting sea connections 20.4.1953 Completion of pumping arrangements 9.10.53 Engines tried under working conditions 9.10.53
 Crank shaft, material S.M. Steel Identification mark see separate sheet Flywheel shaft, material 1 Identification mark 1
 Thrust shaft, material S.M. Steel Identification mark see separate sheet Intermediate shafts, material S.M. Steel Identification marks see separate sheet
 Tube shaft, material 1 Identification mark 1 Screw shaft, material S.M. Steel Identification mark see separate sheet
 Identification marks on air receivers No. H81-H82-H83-H84 LLOYD'S TEST - 41.5 Kg/cm² - W.P. 50 Kg/cm²
 Welded receivers, state Makers' Name Società Navale delle officine di Lavignano
 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 see separate sheet
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo YES. If so, have the requirements of the Rules been complied with YES
 If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with 1
 Is this machinery duplicate of a previous case YES. If so, state name of vessel Squanio Bitolini

General Remarks (State quality of workmanship, opinions as to class, etc.) The Machinery of this vessel has been examined under Special Survey of Bested Materials and in accordance with the Approved Plans Secretary's letters and Rules Requirements. - The Materials and Workmanship are good. The complete installation has been tried under Working Conditions at Full Power and found satisfactory. - The Torsional Vibration Characteristics of the Complete Propelling Machinery have been Approved for a service speed of 125 R.P.M. - The Machinery of this vessel is worthy to be classed in the Society's Register Book with the Notation LMC 10.

CL - OIL ENGS.
 NB - The reports covering the forgings of the two main oil engines have been already forwarded to Quova F.E. report no. 19035 as these engines were previously intended for C.R.A. yard no. 1769 - (see Quova letter dated 19th February 1953)

AMOUNT OF ENTRY FEES
 LESS 25% DISCOUNT = 44.805.875.
 CAR FUND = 24.127.
 TRANS. EXP. = 113.985.
 REV. TAX. = 28.322.
 TOTAL = 71.272.787.
 When applied for 15/11/1953
 Donkey Boiler Peccan FUND 44.504.900.
 L.M. 10.53. 5.049.
 Travelling Expenses (if any) 24.734.451.
 REG. TAX. 44.13.332.
 When received 19
 For Engineer Surveyor to Lloyd's Register of Ships
 FRIDAY - 4 DEC 1953
 Assigned + LMC 10.53

(attached to Mchly F.E. of F. Bitolini)

Identification marks:

	PORT.	STBD.
intermediate shaft.	LLOYD'S H 94 F.B.G. To - 7.3.53	LLOYD'S T 13 F.B.G. To - 7.3.53
intermediate shaft.	LLOYD'S H. 993 F.B.G. To - 2.14.53	LLOYD'S H 894 F.B.G. To - 31.11.53
screw shafts CL	LLOYD'S SS 2459 F.B.G. 9E 21.3.53	LLOYD'S SS 2460 F.B.G. 9E 27.6.53
Propellers	LLOYD'S P. 600 F.B.G. 9E 27.9.53	LLOYD'S P. 440 F.B.G. 9E 10.8.1953
Lower screw shaft CL	LLOYD'S T 129/A F.B.G. To. 24.7.53	
M. eng. crank shaft	LLOYD'S HB 512 F.B.G. 333/95-H 63-ES 96	LLOYD'S HB 512 F.B.G. 333/95-67 17.11.51
M. eng. thrust shaft	LLOYD'S P 321/A F.B.G. 17.9.51	LLOYD'S P 321/B F.B.G. 17.9.51

DESCRIPTION OF THE FIRE EXTINGUISHING ARRANGEMENTS -

In main engine room -
 Perforated steam piping under the lower platform -
 1 foot extinguisher of 45 lbs. with hose.
 2 " " " 9 " each.
 2 CO₂ " " 5 kgt. "
 3 Water hose connections of 65 mm. bore with hose.

In donkey boiler room -
 Perforated steam piping under boiler and o.f. units.
 1 foot extinguisher of 135 lbs. with hose -
 2 " " " 9 " each.
 1 Water hose connection of 65 mm bore with hose.

In flat in engine room P.S. -
 Perforated steam piping under the two exhaust gas o.f. stud. boilers -
 3 foot extinguishers of 9 lbs. each.
 2 CO₂ " " 5 kgt. "

In pump room (cargo) and in cond. pump room -
 Perforated steam piping under lower platform.
 1 foot extinguisher of 45 lbs with hose.
 1 " " " 9 lbs.

In between deck under bridge -
 Perforated steam piping
 1 foot extinguisher of 9 lbs.

In steering engine room -
 1 foot extinguisher of 9 lbs.

Certificate (if required) to be sent to the Registrar of Shipping (Ministry of Transport) or below the agent for the Registrar of Shipping (Ministry of Transport).
 The Surveys are requested not to be made on or below the agent for the Registrar of Shipping (Ministry of Transport).
 24.11.53