

## REPORT ON OIL ENGINE MACHINERY

No. 21512

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Date of writing Report 23/4/1956 When handed in at Local Office 21/5/1956 Port of GENOA

No. in Survey held at Genoa and La Spezia Date, First Survey 22/11/54 Last Survey 14/4/1956  
Reg. Book. Number of Visits 64

Single on ~~the~~ ~~the~~ Screw vessel M/V "GIACINTO MOTTA" Gross 11249 (provisional)  
Tons Net

Built at La Spezia - Muggiano By whom built S.A. Ansaldo & Cant. di Muggiano Yard No. 1504 When built 1956  
Engines made at Genoa-Sampierdarena By whom made S.A. Ansaldo, Stab. Meccanico Engine No. 757001 When made 1955  
Oil fired: S.A. Ansaldo Stab. Mecc. (5965)  
Donkey Boilers made at Genoa By whom made Cantieri del Tirreno Boiler No. (4767/a) When made 1955  
Exhaust gas: Cantieri del Tirreno  
Brake Horse Power Maximum 5500 Owners Carbogas Soc. di Navigazione S.p.A. Port belonging to Palermo  
Service 1100 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
M.N. as per Rule 1100

Trade for which vessel is intended -

IL ENGINES, &c. Type of Engines "FIAT" airless injection 2 or 4 stroke cycle 2 Single or double acting single  
Maximum pressure in cylinders 60 kg/cm<sup>2</sup> Diameter of cylinders 750mm Length of stroke 1320mm No. of cylinders 7 No. of cranks 7  
Mean Indicated Pressure 6,25 kg/cm<sup>2</sup> Span of bearings (i.e., distance between inner edges of bearings in  
way of a crank) 968 mm. Is there a bearing between each crank yes Revolutions per minute { Maximum 125  
Service 125  
Flywheel dia. 2430mm Weight 3920 kg Moment of inertia of flywheel (kg.cm.sec.<sup>2</sup>) 44879 Means of ignition compression Kind of fuel used diesel  
" " " " balance wts. ( " " " " ) 916 mm. Thickness parallel to axis 318 mm.  
Crank pin dia. 550 mm. Crank webs 316 mm. shrunk Thickness around eye hole 252,5 mm.  
Flywheel Shaft, diameter as per Rule as approved Intermediate Shafts, diameter as per Rule as approved Thrust Shaft, diameter at collars as per Rule as approved  
as fitted 550 mm. as fitted 350 mm. as fitted 550 mm.  
Tube Shaft, diameter as per Rule as approved Screw Shaft, diameter as per Rule 436-438 mm. Is the screw shaft fitted with a continuous liner yes  
as fitted - as fitted - as fitted -  
Bronze Liners, thickness in way of bushes as per Rule as approved Thickness between bushes as per Rule 16,5 mm. Is the after end of the liner made watertight in the  
as fitted 21 mm. as fitted -  
Propeller boss yes 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 fitted at the after  
end of stern tube. - If so, state type Length of bearing in Stern Bush next to and supporting propeller 1918 mm.  
Propeller, dia. 4880mm Pitch 3620mm No. of blades four Material M.B. whether moveable solid Total developed surface 9 sq. mts.  
Moment of inertia of propeller including entrained water (kg.cm.sec.<sup>2</sup>) 2143055 Kind of damper, if fitted -

Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine governor Means of  
lubrication forced Thickness of cylinder liners 60mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled  
or lagged with non-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned  
back to the engine - Cooling Water Pumps, No. and how driven 3-electric driven Working F.W. one  
S.W. one Spare F.W. and S.W. one 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. and capacity none Can one be overhauled while the other is at work -  
Pumps connected to the Main Bilge Line No. and capacity of each Three- of 270-130 x 90 m<sup>3</sup>/hr. capacity  
How driven by electric motors  
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 capacity 1 of 270 m<sup>3</sup>/hr Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 - 250 Ts/hr  
Are two independent means arranged for circulating water through the Oil Cooler yes Branch Bilge Suctions (19 of 82,5 mm in Ø  
(1 of 65 mm in Ø  
No. and size: - In machinery spaces 7 of 82,5 mm. in Ø In pump room  
In holds, &c. 12 of 82,5 mm. in Ø - 1 of 65mm. in Ø in forward cofferdam.  
Direct Bilge Suctions to the engine room bilges, No. and size 1 of 125 mm in Ø; 1 of 150 mm Ø; 2 of 204 mm. Ø.  
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  
Are all Sea Connections fitted direct on the skin of the Ship on stool Are they fitted with valves or cocks valves Are they fixed  
sufficiently 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  
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  
What pipes pass through the bunkers suction pipe from fore peak How are they protected in tunnel  
What pipes pass through the deep tanks Have they been tested as per Rule yes  
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 - 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. - No. of stages - diameters (HP 102mm stroke 190 mm driven by electric  
Auxiliary Air Compressors, No. two No. of stages two diameters (LP 235mm stroke 60 mm driven by motor.  
Small Auxiliary Air Compressors, No. one No. of stages two diameters 75-64mm stroke 60 mm driven by oil engine  
14 m<sup>3</sup> capacity  
What provision is made for first charging the air receivers the above small aux. air compressor  
Scavenging Air Pumps or Blowers, No. one-2 piston in tandem How driven by main engine crankshaft  
Have they been made under survey yes Engine Nos. 2654248, 2654249, 2654250, 2654251.  
Auxiliary Engines Makers name S.A. Ansaldo Stab. Mecc. - Genoa Position of each in engine room port fwd. - port aft. -  
stbd. fwd. - stbd. aft. herewith attached.  
Report No.



yes State No. of report or certificate Genoa M.646 (copy herewith attached) Rpt. 5b.

AIR RECEIVERS:—Have they been made under survey

State full details of safety devices normal spring loaded safety valves.

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. two Total cubic capacity 20 m3 Internal diameter 1356 mm. thickness 27 mm

Seamless, welded or riveted longitudinal joint welded Material S.M. Steel Range of tensile strength 41+47 kg/mm2 Working pressure 30 kg/cm2

IS A DONKEY BOILER FITTED yes-two If so, is a report now forwarded yes

Is the donkey boiler intended to be used for domestic purposes only yes

PLANS. Are approved plans forwarded herewith for shafting 5/8/54 - 29/11/54 Receivers 3/1/55 Separate fuel tanks 2/3/55- 14/11/55

Donkey boilers oil fired: 3/11/54 (If not, state date of approval) 15/4/55 Pumping arrangements in machinery space 18/5/55

Donkey boilers ex. gas: 13/4/55 General pumping arrangements 12/5/55

Oil fuel burning arrangements 12/5/55

Have Torsional Vibration characteristics been approved yes Date and particulars of approval Secretary's letters dd. 18/5/55 and 25/7/55

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes State if for "short voyages" only

State the principal additional spare gear supplied one cylinder liner & one cylinder cover of main engine.

ANSAALDO S.A. STABILIMENTO MECCANICO

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

Dates of Survey while building

During progress of work in shops - from 22/11/54 to 23/10/55

During erection on board vessel - from 14/12/55 to 14/4/56

Total No. of visits 64

Dates of examination of principal parts—Cylinders 7/2/55- 1/9/55- 26/5/55- 18/7/55 Connecting rods 9/5/55

Crank shaft 16/6/55 Flywheel shaft 26/6/55 Covers 12/9/55 Pistons 4/7/55 Rods 26/3/56 Tube shaft 15/12/55

Screw shaft 26/3/56 Propeller 11/4/56 Thrust shaft 26/6/55 Intermediate shafts 26/3/56 Engine holding down bolts 26/3/56

Completion of fitting sea connections 15/12/55 Completion of pumping arrangements 26/3/56 Engines tried under working conditions 7/4/56

Crank shaft, material S. M. Steel Identification mark Lloyd's Gen. 21/5/55- 1333- GM. Flywheel shaft, material S.M. Steel Identification mark Lloyd's 2621

Thrust shaft, material S.M. Steel Identification mark Lloyd's Gen. 21/5/55- 3670- GM. Intermediate shafts, material S.M. Steel Identification mark Lloyd's 2621

Tube shaft, material S.M. Steel Identification mark Lloyd's 2621

Identification marks on air receivers ANSAALDO CAR. N°222 - 223

LLOYD'S TEST GEN.- 48.5 kg/cm2 - WP 30 kg/cm2 - 30.8.55 AA.

Welded receivers, state Makers' Name S.A. Ansaldo- Stabilimento Costruzioni Carpenteria of Genoa-Voltri.

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 1=136 litres froth, 7=13 litres froth, 3=5 kg.CO2

Full description of fire extinguishing apparatus fitted in machinery spaces general fire extinguishing apparatus.

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

What is the special notation desired

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with "Giovanni Agnelli", see Gen. Rpt No. 21459.

Is this machinery duplicate of a previous case yes If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.)

The machinery of this vessel has been constructed under special survey of tested materials and in accordance with the approved plans, Secretary's letters and Rules Requirements. The materials and the workmanship are good. The complete installation has been tried under working condition at full power and found satisfactory. The torsional vibration characteristics of the complete propelling system have been approved by a service speed of 125 RPM. The machinery of this vessel is worthy to be classed in the Society's Register Book with the notation +LMC 12-55, CL, Oil Eng.

Main engine not to be operated continuously between 43 and 54 R.P.M.

This engine is fitted with crankcase explosion relief devices.

FIRST ENTRY FEE DURING CONSTRUCTION

The amount of Entry Fee ... 151,000

Special ... 318,750

Donkey Boiler Fee ... 5,375

Travelling Expenses (if any) ... 25,425

REV. TAX ... 12,010

When applied for 16/5/56

When received 19/5/56

Engineer Surveyor to Lloyd's Register of Shipping.

(A. Grasselli & G. Vigo)

FRIDAY 15 JUN 1956

Lloyd's Register Foundation