

# REPORT ON OIL ENGINE MACHINERY

No. 21512

Received at London Office 22 MAY 1956

Date of writing Report 23/4/56 When handed in at Local Office 21/5/56 Port of GENOA

No. in Survey held at Genoa and La Spezia Date, First Survey 22/11/54 Last Survey 14/4/56  
Reg. Book. Number of Visits 64

Single on the Main Screw vessel M/V "GIACINTO MOTTA" Tons 11249 (provisional)  
Propeller Quadruple 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

Donkey Boilers made at Genoa By whom made Oil fired: S.A. Ansaldo Stab. Mecc. Exhaust gas: Cantieri del Tirreno Boiler No. (5965) (4767/a) When made 1955

Brake Horse Power 5500 Owners Carbogas Soc. di Navigazione S.p.A. Port belonging to Palermo

M.N. as per Rule 1100 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended -

OIL 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 - 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

Crank pin dia. 550 mm. Crank webs Mid. length breadth 916 mm. Thickness parallel to axis 318 mm.

Intermediate Shafts, diameter as approved Thrust Shaft, diameter at collars as approved

Tube Shaft, diameter as approved Screw Shaft, diameter 436-438 mm. Is the screw shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as approved Thickness between bushes as approved Is the after end of the liner made watertight in the 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 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 -

Propeller, dia. 4880mm Pitch 3620mm No. of blades four Material M.B. whether moveable solid Total developed surface 9 sq. mts.

Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine governor Means of lubrication forced

Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled yes

Cooling Water Pumps, No. and how driven 3-electric driven Working F.W. one

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

Are 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 motor.

Auxiliary Air Compressors, No. two No. of stages two diameters (LP 235mm) stroke 60 mm driven by oil engine

Small Auxiliary Air Compressors, No. one No. of stages two diameters 75-64mm stroke 60 mm driven by oil engine

What provision is made for first charging the air receivers the above small aux. air compressor

Scavenging Air Pumps or Blowers, No. one-2piston in tandem How driven by main engine crankshaft

Auxiliary Engines Have they been made under survey yes Engine Nos. 2654248, 2654249, 2654250, 2654251.

Makers name S.A. Ansaldo Stab. Mecc. - Genoa Position of each in engine room port fwd. - port aft. -

stbd. fwd. - stbd. aft. Report No. herewith attached.

**AIR RECEIVERS:**—Have they been made under survey yes State No. of report or certificate Genoa M.646 (copy herewith attached) Rpt. 5b.  
 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 -  
 Donkey boilers oil fired: 3/11/54 (If not, state date of approval) 15/4/55 Pumping arrangements in machinery space 18/5/55  
 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  
 Cantieri di Muggiano  
 The foregoing is a correct description, and the particulars of the installation as fitted are as approved for torsional vibration characteristics.—  
 Manufacturer.

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 26/6/55 Covers 12/9/55 Pistons 4/7/55 Rods 18/7/55 Connecting rods 9/5/55  
 Crank shaft 16/6/55 Flywheel shaft 26/6/55 Thrust shaft 26/6/55 Intermediate shafts 26/3/56 Tube shaft 15/12/55  
 Screw shaft 26/3/56 Propeller 11/4/56 Stern tube 11/4/56 Engine seatings 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 SS 1323- GM. Flywheel shaft, material S.M. Steel Identification mark Lloyd's SS 1323- GM.  
 Thrust shaft, material S.M. Steel Identification mark SS 3670- GM. Intermediate shafts, material S.M. Steel Identification mark Lloyd's SS 1323- GM.  
 Tube shaft, material - Identification mark 21/2/55 Screw 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  
 Full description of fire extinguishing apparatus fitted in machinery spaces 1=136 litres froth, 7=13 litres froth, 3=5 kg. CO2 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 -  
 Is this machinery duplicate of a previous case yes If so, state name of vessel "Giovanni Agnelli", see Gen. Rpt No. 21459.

**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.

**Committee's Minute**  
 FIRST ENTRY FEE DURING CONSTRUCTION £156,000  
 The amount of Entry Fee £156,000  
 Special £375,000  
 Donkey Boiler Fee £5,375  
 Travelling Expenses (if any) £25,475  
 REV. TAX £12,010  
 Assigned 7 LMC 4.56 -  
 (Will Tons. Ltd.)  
 DB 100 lb.  
 CR.  
 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