

# REPORT ON OIL ENGINE MACHINERY.

No. 19035  
8-DEC-1952

Writing Report 14-11-52 When handed in at Local Office 26-11-52 Port of GENOVA  
 Survey held at TURIN Date, First Survey 22-6-51 Last Survey 16-9-52  
 Book. F. BIBOLINI Cont. Ansaldo di Muggiano Number of Visits 35  
 on the Single Screw vessel FOR CANTIERI RIUNITI DELL'ADRIATICA YARD N° 1484 Tons Gross   
Triple La Spezia, Vd. N° 1484 Net   
Quadruple  
TRIESTE By whom built CANTIERI RIUNITI DELL'ADRIATICA Yard No. 1484 When built 1952  
 made at TURIN By whom made Soc. ANAN. FIAT S.G.M. Engine No. 3630 When made 1952  
 Boilers made at TURIN By whom made Soc. ANTARTIDE DI PALERMO Boiler No. 3629 When made 1952  
 Horse Power TRIALS 7340 Owners Soc. ANTARTIDE DI PALERMO Port belonging to TURIN  
 Power as per Rule (1085) x 2 = 2170 2940 Is Refrigerating Machinery fitted for cargo purposes  Is Electric Light fitted   
 for which vessel is intended WHALE FACTORY SHIP

Engines, &c. — Type of Engines FIAT 757 AIRLESS INJECTION 2 or 4 stroke cycle 2 Single or double acting SINGLE  
 Mean pressure in cylinders 60 kg/cm<sup>2</sup> Diameter of cylinders 750 mm Length of stroke 1320 mm No. of cylinders 7 No. of cranks 7  
 Indicated Pressure TRIALS 7.6 kg/cm<sup>2</sup> 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 968 mm Is there a bearing between each crank YES Revolutions per minute TRIALS 133

Wheel dia. 318 mm Weight APPROVED Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) APPROVED Means of ignition COMPRESSION Kind of fuel used DIESEL  
 Solid forged APPROVED dia. of journals 550 mm Crank pin dia. 550 mm Crank webs Mid. length breadth 316 mm shrunk Thickness parallel to axis 252.5 mm  
 Semi built APPROVED as per Rule APPROVED as fitted APPROVED Mid. length thickness 316 mm Thickness around eye hole 252.5 mm  
 All built APPROVED as per Rule APPROVED as fitted APPROVED Thrust Shaft, diameter at collars 550 mm as per Rule APPROVED

Shaft, diameter APPROVED as per Rule APPROVED as fitted APPROVED Intermediate Shafts, diameter APPROVED as per Rule APPROVED as fitted APPROVED  
 Shaft, diameter APPROVED as per Rule APPROVED as fitted APPROVED Screw Shaft, diameter APPROVED as per Rule APPROVED as fitted APPROVED  
 Is the (tube screw) shaft fitted with a continuous liner

Liners, thickness in way of bushes APPROVED as per Rule APPROVED as fitted APPROVED Thickness between bushes APPROVED as per Rule APPROVED as fitted APPROVED  
 Is the after end of the liner made watertight in the stern boss   
 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-  
 volatile  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  
 end of the shaft  If so, state type  Length of bearing in Stern Bush next to and supporting propeller

Propeller, dia. APPROVED Pitch APPROVED No. of blades APPROVED Material APPROVED whether moveable  Total developed surface APPROVED sq. feet  
 Moment of inertia of propeller (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) APPROVED Kind of damper, if fitted   
 Reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when declutched GOVERNOR Means of  
 operation FORCED Thickness of cylinder liners APPROVED Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled  
 and with non-conducting material LAGGED If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned  
 into the engine  Cooling Water Pumps, No. APPROVED Is the sea suction provided with an efficient strainer which can be cleared within the vessel   
 Auxiliary pumps worked from the Main Engines, No. APPROVED Diameter APPROVED Stroke APPROVED Can one be overhauled while the other is at work

connected to the Main Bilge Line { No. and size APPROVED How driven APPROVED  
 Cooling water led to the bilges  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 APPROVED Power Driven Lubricating Oil Pumps, including spare pump, No. and size APPROVED  
 independent means arranged for circulating water through the Oil Cooler  Suctions, connected to both main bilge pumps and auxiliary  
 pumps, No. and size:—In machinery spaces APPROVED In pump room APPROVED  
 &c. APPROVED

Independent Power Pump Direct Suctions to the engine room bilges, No. and size APPROVED  
 Are the bilge suction pipes in holds and tunnel well fitted with strum-boxes  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   
 Sea Connections fitted direct on the skin of the Ship  Are they fitted with valves or cocks  Are they fixed  
 sufficiently high on the ship's side to be seen without lifting the platform plates  Are the overboard discharges above or below the deep water line   
 Each fitted with a discharge valve always accessible on the plating of the vessel  Are the blow off cocks fitted with a spigot and brass covering plate

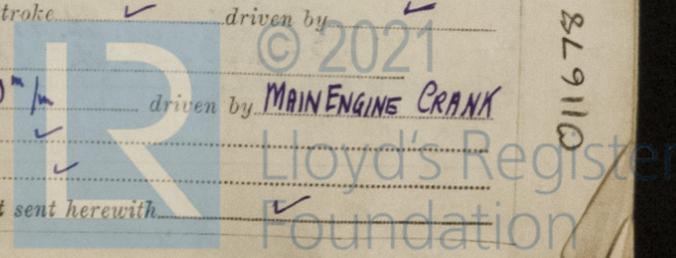
Pipes pass through the bunkers  How are they protected   
 Pipes pass through the deep tanks  Have they been tested as per Rule   
 Pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times   
 Arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery  
 spaces from one compartment to another  Is the shaft tunnel watertight  Is it fitted with a watertight door  worked from

At vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork   
 Air Compressors, No. APPROVED No. of stages APPROVED diameters APPROVED stroke APPROVED driven by APPROVED  
 Auxiliary Air Compressors, No. APPROVED No. of stages APPROVED diameters APPROVED stroke APPROVED driven by APPROVED  
 Provision is made for first charging the air receivers

Inflating Air Pumps, No. ONE (2 PISTONS IN TANDEM) diameter 1400 mm stroke 980 mm driven by MAIN ENGINE CRANK  
 Auxiliary Engines crank shafts, diameter APPROVED as per Rule APPROVED as fitted APPROVED Position APPROVED  
 Auxiliary engines been constructed under special survey  Is a report sent herewith

*Handwritten initials and marks*

*Handwritten initials: JM, 27, 53, correct, T.V.*



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**AIR RECEIVERS:**—Have they been made under survey... **YES** State No. of report or certificate **GEN. 28/11/52**

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.** **H** Total cubic capacity... **32 cu ft** Internal diameter... **1348 mm** thickness... **8.85 mm**

Seamless, welded or riveted longitudinal joint... **Welded** Material... **S.M. STEEL** Range of tensile strength... **41/47 kg/cm<sup>2</sup>** Working pressure... **30**

**IS A DONKEY BOILER FITTED**  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 **CRANK-THRUST 19-4-51** Receivers...  Separate fuel tanks...

Donkey boilers...  General pumping arrangements...  Pumping arrangements in machinery space...

Oil fuel burning arrangements...

Have Torsional Vibration characteristics been approved... **No** Date of approval...

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied...

State the principal additional spare gear supplied...

To BE SUPPLIED AT TRIESTE

**FIAT**  
STABILIMENTO GRANDI MOTORI  
Via V. Direttori

The foregoing is a correct description, and the details 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 22-6-51 to 16-9-52**
- During erection on board vessel - - -
- Total No. of visits... **25**

Dates of examination of principal parts—Cylinders **7/2/52 to 4/4/52** Covers **7/2/52 to 4/4/52** Pistons **24/8/52 to 9/10/51** Rods **10/11/51** Connecting rods **22/5/51**

Crank shaft **28/12/51** Flywheel shaft  Thrust shaft **28/12/51** 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 **S.M. STEEL** Identification mark **LLOYDS No 512 28-12-51 HB** Flywheel shaft, material  Identification mark

Thrust shaft, material **S.M. STEEL** Identification mark **LLOYDS No 12.231/A 17-4-51 JS** Intermediate shafts, material  Identification marks

Tube shaft, material  Identification mark  Screw shaft, material  Identification mark

Identification marks on air receivers **N<sup>os</sup> 1181 - 1182 - 1183 - 1184 LLOYDS TEST 48.5 MGS W.P. 30**  
**23-11-51 J.S.**

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...

Description of fire extinguishing apparatus fitted...

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo...  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... **YES** If so, state name of vessel **IGNAZIO BIBOLINI ANSALDO MUGGIANO TdA**

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

These engines have been constructed under Special Survey of tested materials and in accordance with the Approved Plans, Section letters and to Rule requirements. The workmanship and materials are good. The torsional vibration characteristics and details of the shafting installation have not been submitted as the Engine Builders have stated that the vessel is at present in suspension. The engines have now been despatched to Trieste for fitting on board the vessel. When the shafting and torsional vibration characteristics have been approved and the engines installed on board the ship and tried under working conditions to the satisfaction of the Surveyors to the Society, the vessel will be in my opinion eligible for entry in the Register Book of the Society.

**LLOYDS MACHINERY CERTIFICATE (WITH DATE)**

**OIL ENGINE** made in the Register Book of the Society.

23 F.E. 1074.500  
The amount of Entry Fee **4m 25% 264. 8.05.875=**

Special **CAR FUND** ... **24.177** = When applied for **2/12/52**

Donkey Boiler Fee... **£** : : When received **19**

Travelling Expenses (if any) **113.995=**  
**REV. TAX. 28.322=**

Committee's Minute **FRIDAY - 4 DEC 1953**

**H. F. Mansfield**  
Engineer Surveyor to Lloyd's Register of Shipping

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

Assigned **See minute on hull for rpt**

